

**REPORT**  
**OF THE**  
**LICENSE COMMITTEE**  
**OF THE**  
**NATIONAL ASSOCIATION**  
**OF**  
**STATIONARY ENGINEERS**



**2nd Edition, 1908.**

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# National Association

## of Stationary Engineers



Chicago, Nov. 2, 1906.  
To Sibley College

Dear Sir:—

*This copy of the report of the License Committee of the National Association of Stationary Engineers is sent you with the compliments of the N. A. S. E. Kindly sign the attached blank and return to the writer so that I may know your copy has been received.*

*Very truly yours,*

*F. W. RAVEN, Nat'l Sec'y*  
315 Dearborn St., Chicago, Ill.

(In reference to the organization see page 152)

.....190

MR. F. W. RAVEN,  
Chicago, Ill.

Dear Sir:—

*I beg to advise you that I have received a copy of the report of the License Committee of the National Association of Stationary Engineers, and wish to thank you for same.*

*Very truly yours,*

Signature.....

Address.....

City.....

MAR 3 1919

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# PREFACE.

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This volume is respectfully offered by the NATIONAL ASSOCIATION OF STATIONARY ENGINEERS in the hope that it will be of service to engineering societies and others who are students in the subject of or advocates of License Laws for stationary engineers.

We do not know of any other source where the information here in contained can be found. It is a supplement to the volume we published in 1896. Much of the work attached to gathering up the subject matter of the report was furnished the undersigned by the license committee of the preceding two years, Messrs. John W. Lane, Jr., R. I. 1; Alfred Johnson, Ills. 28, and Jonathan R. Moore, Ills. 1.

We do not know that the report is complete in that it has all the laws in force in the United States and the several laws herein published are not the whole laws as they stand on the statute books of the several states and municipalities. It must be borne in mind that most of the laws in force in the several localities are combined with the Boiler Inspection laws and we have purposely eliminated all paragraphs that refer solely to that subject. Copies hereof may be obtained by addressing the National Secretary of this organization.

Respectfully submitted,

CHARLES W. NAYLOR, Ills. 28.

ALFRED JOHNSON, Ills. 28.

FRANK J. WOOD, N. Y. 31.

*Committee.*

Chicago, Sept. 1, 1906.

# REPORT

## OF THE

# LICENSE COMMITTEE.

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### MASSACHUSETTS.

SECTION 78. No person shall have charge of or operate a steam boiler or engine in this commonwealth, except boilers and engines upon locomotives, motor road vehicles, boilers in private residences, boilers in apartment houses of less than five flats, boilers under the jurisdiction of the United States, boilers used for agricultural purposes exclusively, boilers of less than eight horse power, and boilers used for heating purposes exclusively which are provided with a device approved by the chief of the district police limiting the pressure carried to fifteen pounds to the square inch, unless he holds a license as hereinafter provided. The owner or user of a steam boiler or engine, other than boilers or engines above excepted, shall not operate or cause to be operated a steam boiler or engine for a period of more than one week, unless the person in charge of and operating it is duly licensed.

SEC. 79. If such steam engine or boiler is found to be in charge of or operated by a person who is not a duly licensed engineer or fireman and, after a lapse of one week from such time, it is again found to be operated by a person who is not duly licensed, it shall be deemed prima facie evidence of a violation of the provisions of the preceding section.

SEC. 80. The words "have charge" or "in charge", in the two preceding sections, shall designate the person under whose supervision a boiler or engine is operated. The person operating shall be understood to mean any and all persons who are actually engaged in generating steam in a power-boiler.

SEC. 81. Whoever desires to act as engineer or fireman shall apply for a license therefor to the examiner of engineers for the city or town in which he resides or is employed, upon blanks to be furnished by the examiner. The application shall be accompanied by

a fee of one dollar and shall show his total experience. Wilful falsification in the matter of statements contained in the application shall be deemed sufficient cause for the revocation of said license at any time. The applicant shall be given a practical examination and, if found competent and trustworthy, he shall receive, within six days after the examination, a license graded according to the merits of his examination, irrespective of the grade of license for which he applies. The applicant shall have the privilege of having one person present during his examination, who shall take no part in the same, but who may take notes if he so desires. No person shall be entitled to receive more than one examination within ninety days, except in the case of an appeal as hereinafter provided. A license shall continue in force for three years, or until it is revoked for the incompetence or untrustworthiness of the licensee; and a license shall remain revoked until a new license is granted. A license, unless revoked, shall be renewed by an examiner of engineers upon application and without examination, if the application for renewal is made within six months after its expiration. If a new license of a different grade is issued, the old license shall be destroyed in the presence of the examiner. If a license is lost by fire or other means, a new license shall be issued in its place, without re-examination of the licensee, upon satisfactory proof of such loss to an examiner.

SEC. 82. Licenses shall be granted according to the competence of the applicant and shall be distributed in the following classes:—Engineers' licenses; first class, to have charge of and operate any steam plant; second class, to have charge of and operate a boiler or boilers, and to have charge of and operate engines, no one of which shall exceed one hundred and fifty horse-power, or to operate a first class plant under the engineer in direct charge of the plant; third class, to have charge of and operate a boiler or boilers not exceeding in the aggregate one hundred and fifty horse-power, and an engine not exceeding fifty horse-power, or to operate a second class plant under the engineer in direct charge of the plant; fourth class, to have charge of and operate hoisting and portable engines and boilers.

Firemen's licenses: extra first class, to have charge of and operate any boiler or boilers; first class, to operate any boiler or boilers; second class, to have charge of and operate any boiler or boilers where the pressure carried does not exceed twenty-five pounds to the square inch, or to operate high pressure boilers under the engineer or fire-



man in direct charge thereof. A person holding an extra first or first class fireman's license may operate a third class plant under the engineer in direct charge of the plant. A person holding an engineer's or firemen's license, who desires to have charge of or to operate a particular steam plant or type of plant may, providing he holds an engineer's or firemen's license, if he files with his application a written request signed by the owner or user of said plant for such examination, be examined as to his competence for such service, and no other, and if found competent and trustworthy shall be granted a license for such service and no other. No special license shall be granted to give any person charge of a plant over one hundred and fifty horse-power.

SEC. 83. The horse power of a boiler shall be ascertained upon the basis of three horse power for each square foot of grate surface, for a power boiler, and on the basis of one and one-half horse power for each square foot of grate surface, if the boiler is used for heating purposes exclusively. The engine power shall be reckoned upon a basis of a mean effective pressure of forty pounds per square inch of piston for a simple engine; fifty pounds for a condensing engine; and seventy pounds for a compound engine, reckoned upon area of high pressure piston.

SEC. 84. A person who is aggrieved with the action of an examiner in refusing or revoking a license may, within one month after his decision, appeal therefrom to the remaining examiners, who shall together act as a board of appeal, and a majority of whom shall have the power to hear the parties and pass upon the subjects of appeal. The applicant may have the privilege of having one first class engineer present during the hearing of his appeal, but he shall take no part herein. The decision of the majority of such remaining examiners so acting shall be final if approved by the chief of the district police.

SEC. 85. An engineer's or fireman's license, granted under the provisions of the seven preceding sections or the corresponding provisions of earlier laws, shall be placed so as to be easily read in a conspicuous place in the engine room or boiler room of the plant operated by the holder of such license.

SEC. 86. The boiler inspection department of the district police shall act as examiners and enforce the provisions of the eight preceding sections and whoever violates any of the provisions of said sections shall be punished by a fine of not less than ten nor more

than three hundred dollars or by imprisonment for not more than three months. A trial justice shall have jurisdiction of complaints for violation of the provisions of the eight preceding sections, and in such cases, may impose a fine of not more than fifty dollars. All members of the boiler inspection department of the district police shall have authority in the pursuance of their duty to enter any premises on which a boiler or engine is situated, and any person who hinders or prevents or attempts to prevent any state boiler inspector from so entering shall be liable to the penalty as specified in this section.

SEC. 4. All acts and parts of acts inconsistent herewith are hereby repealed: *provided, however*, that this act shall not apply to the exemptions specified in section seventy-eight of chapter one hundred and two of the Revised Laws or that such repeal shall not invalidate any license granted under the acts repealed; and licensees holding licenses so granted shall have the powers given to licensees of the same class by section two of this act.

#### MINNESOTA.

SECTION 1. Within sixty (60) days after the passage of this act, and biennially thereafter, there shall be appointed by the governor a board of fifty-three (53) inspectors, one (1) of whom shall reside in each senatorial district, except as hereinafter provided, whose duty it shall be to inspect all steam boilers in use within the state, not subject to inspection under the laws of the United States and not hereinafter excepted, and to examine and grant certificates of license to steam engineers entrusted with the care and management of steam boilers; provided, however, the provisions of this act shall not apply to heating plants in private residences. And provided, further, that when there is more than one senatorial district within any one county in this state, in such counties there shall be but one boiler inspector for each of such counties. Said inspectors shall examine and license all masters and pilots on inland waters of the state, and such examination shall be conducted as near as may be, pursuant to the rules and regulations provided by the laws of the United States for the examination of masters and pilots. Said inspectors shall hold their respective offices for two (2) years from February first (1st), respectively, and until their successors are appointed and qualified, unless sooner removed by the governor. Said inspectors shall annually on or before the thirty-first (31st) day of January,



render a report to the secretary of state, and to the legislators, showing a detailed statement of the number of inspections made, licenses issued, and the amount of fees received therefor, also showing the amount of disbursements of their offices.

SEC. 2. No person shall be eligible to hold the office of inspector of boilers who has not had at least ten (10) years of actual experience in operating steam engines and steam boilers, or who is directly or indirectly interested in the manufacture or sale of boilers or steam machinery, or any patented article required to be used, or that is in general use in the construction of steam engines or boilers, or who is not of good moral character, suitably qualified by experience in the construction of steam boilers so as to enable him to perform the duties of the office; and no person shall enter upon or perform any of the duties of inspector who has not taken and subscribed an oath, and filed the same with the secretary of state, that he will faithfully and impartially perform the duties of his office.

SEC. 4. Every owner, lessee or other person, having charge of steam boilers, or any boat propelled in whole or in part by steam, not subject to inspection under the laws of the United States, shall cause the same to be inspected at least once each year by the inspectors herein provided for, and every such owner, lessee, or person having charge of such boilers or steam vessels who shall raise steam and operate such boilers and machinery without such inspection shall be deemed guilty of a misdemeanor and fined not less than fifty (50) dollars nor more than one hundred (100) dollars, or may be imprisoned in the county jail not to exceed thirty (30) days, or both at the discretion of the court.

SEC. 5. The inspector or inspectors shall once each year at least, upon application in writing by the owner, lessee, or manager carefully inspect the hull, boiler, machinery and equipments of all steam vessels and all steam boilers liable to inspection under this act, and shall satisfy themselves that every such vessel is of a structure suitable for the service in which she is to be employed, and has suitable accommodations for passengers and the crew, and is in condition to warrant the belief that she may be used in navigating as a steamer with safety to life, and that such equipments as life preservers, floats, pumps, hose, anchors and other things necessary to insure safety have been provided. When the inspection of a steam vessel is completed, and the inspector or inspectors approve the vessel and her equipments throughout, he or they shall make and

subscribe a sworn and verified certificate to the secretary of state in such form as the board of inspectors shall prescribe, and a copy of said certificate shall be furnished by the inspector to the managing owner or master of said steam vessel, who shall post the same in a conspicuous place on said boat. The original certificate shall be kept on file in the office of secretary of state. The said inspector shall also examine all masters and pilots of steam vessels on inland waters of the state as to their qualifications and fitness, and if found competent and reliable enough to perform the duties of master or pilot, the inspector shall issue them a certificate authorizing them to act as such on such inland waters of the state as designated by their certificate. The inspector shall also make such rules and regulations for the navigation of steam vessels as will permit such navigation without danger to life or property. The inspectors shall revoke the license of any master, pilot or engineer if found under the influence of intoxicating liquor when on duty, or who otherwise disregards the rules and regulations as prescribed by the inspectors. The said inspectors shall be authorized to collect a fee of ten (10) dollars for inspection of all vessels of fifty (50) tons burden and over, and five (5) dollars for all of a less tonnage, and a fee of one (1) dollar for the examination of and issuing a master's or pilot's license and one (1) dollar for the biennial renewal of the same. Every lessee, pilot or owner not complying with this section shall be deemed guilty of a misdemeanor and fined not less than one hundred (100) dollars nor more than two hundred (200) dollars, or may be imprisoned in the county jail not to exceed sixty (60) days, or both at the discretion of the court.

SEC. 8. In addition to the annual inspection it shall be the duty of the inspectors to examine at proper times, when in their opinion such examination shall become necessary, all such boilers as shall become unsafe from any cause and to notify the owners or persons using such boilers of any defect and what repairs are necessary in order to render them safe, and it shall be the duty of any person operating such boiler to cease to use the same until such repairs are made, and in case of a failure to comply with the requirements of said inspector, the person operating any such boiler shall, on conviction thereof, be fined not to exceed one hundred (100) dollars and liable to damage to persons or property resulting therefrom.

SEC. 10. It shall be the duty of owners or managers of steam boilers mentioned in this act to allow said inspectors free access to

the same, and it is hereby made the duty of engineers operating the same to assist the inspectors in their examinations and to point out any defect they may know in the boiler or machinery in their charge. Any person not complying with the foregoing provisions of this section shall be punished by a fine of ten (10) dollars and costs. No person shall be entrusted with the operating of any steam boiler or steam machinery who has not been examined by an inspector and found competent and fit to perform the duties of an engineer and received from such inspector a written or printed license so to act, which shall be renewed biennially. Any person who shall operate any steam boiler or steam machinery of any kind without first obtaining a license from an inspector shall be deemed guilty of a misdemeanor and fined not less than twenty-five (25) dollars nor more than fifty (50) dollars. Provided, further; Engineers shall be divided into four classes, namely:

Chief engineers.

First-class engineers.

Second-class engineers.

Special engineers.

First. No license shall be granted to any person under twenty-one (21) years of age except to special engineers. No license shall be granted to any person to perform the duties of chief engineer who has not taken and subscribed an oath that he has had at least five (5) years actual experience in operating steam boilers and steam machinery, or whose knowledge and experience and habits of life are not such as to justify the belief that he is competent to take charge of all classes of steam boilers and steam machinery.

Second. No license shall be granted to any person to act as first class engineer who has not taken and subscribed an oath that he has had at least three (3) years actual experience in operating steam boilers and steam machinery, and whose experience and habits of life are not such as to warrant the belief that he is competent to take charge of all classes of steam boilers and steam machinery not exceeding three hundred (300) horse power.

Third. No license shall be granted to any person to act as second class engineer who has not taken and subscribed an oath that he has had at least one (1) year of actual experience in operating steam boilers and steam machinery, or whose experience and habits of life are not such as to warrant the belief that he is com-

petent to take charge of all classes of steam boilers and steam machinery not to exceed one hundred (100) horse power.

Fourth. No license shall be granted to any person to act as special engineer unless found upon examination to be sufficiently acquainted with the duties of an engineer to warrant the belief that he can be safely entrusted with steam boilers and steam machinery not to exceed thirty (30) horse power.

Whenever complaint is made by any person against any engineer holding a license, that he has through negligence, want of skill, inattention to duty, or violation of any part of this act, permitted his boiler to burn or otherwise become in bad condition, it shall be the duty of the inspector who granted the license, upon satisfactory proof of such negligence or otherwise, to revoke the license of such engineer. Said engineer may however, in case of a grievance against said inspector and person making such complaint, appeal to the entire board and governor of the state, who shall decide the case, which decision shall be final and conclusive.

SEC. 11. In making the inspection of boilers, machinery or steam vessels herein provided for, the inspectors may act jointly or separately, but the inspector or inspectors making such inspection shall in all cases subscribe an oath to the certificate of inspection. And any inspector who shall wilfully certify falsely regarding any steam boilers or their attachments or the hull and equipments of any steam vessel, or who shall grant a certificate of license to any person to act as engineer, master or pilot, contrary to the provisions of this act, shall on conviction thereof be fined not less than fifty (50) dollars nor to exceed five hundred (500) dollars or may be imprisoned not to exceed one (1) year in the state prison or both at the discretion of the court, and in all cases removed from office. All the fines of this act not otherwise disposed of shall accrue to the state.

SEC. 12 When the inspector or inspectors shall find after proper tests and examination of a steam boiler or steam generator, as herein provided, that the same is safe and suitable for use, such inspector or inspectors shall make and subscribe a sworn and verified certificate to the secretary of state, in such form as the board of inspectors shall prescribe, and which among other things shall contain a specification of the test applied and the working power allowed, and a copy of the said certificate shall be furnished by the inspector to the owner of the boiler or steam generator. Such copy so furnished the owner of such boiler or generator shall be by him placed or posted in a

conspicuous position on such boiler or generator, and shall so remain. The inspectors shall be authorized to charge a fee of three (3) dollars for the inspection of each single boiler and its steam connections and two (2) dollars for each additional boiler when connected and inspected at the same time. Said fees shall be payable at the time of the delivery of the inspector's certificate of approval. The fees for the examination of applicants for engineer's license shall be one (1) dollar, and for the biennial renewal of certificates of license, the fee shall be one (1) dollar, which fee shall accompany the application.

SEC. 13. All the fees collected by the inspectors as provided for in this act shall be retained by them as full compensation for their services and divided among them as they may determine at their regular annual meeting.

SEC. 14. This act shall not apply to railroad locomotives nor shall engineers employed by railroad companies be required to procure licenses from the state board of inspectors. Nor shall it apply to boilers inspected by insurance companies and certified by their authorized inspectors to be safe. Provided, further, That the penalties provided for in this act shall not apply in any case where prior to the time the inspector or inspectors, have after the application has been made provided for in this act, notified the persons affected that they are ready to make the inspection as herein provided for.

SEC. 16. The board of boiler inspectors may appoint one (1) or more deputies in the several counties of this state, which deputies shall have the same qualifications as are herein prescribed for boiler inspectors, and shall qualify by taking the oath prescribed by section two (2) of this act, and such deputies shall have the authority within the county for which they are appointed as the chief boiler inspectors under the provisions of this act.

#### MONTANA.

SEC. 550. There must be appointed by the governor, by and with the advice and consent of the Senate, one Inspector of Boilers, whose duty it is to inspect all steam boilers now in use in the state, not subject to inspection under the laws of the United States, and to examine and grant licenses to steam engineers intrusted with the care and management of steam boilers and steam machinery. The salary of the Inspector of Boilers is twenty-four hundred dollars per year, and his term of office is four years, unless sooner removed

by the Governor. The Inspector of Boilers must execute an official bond in the sum of five thousand dollars.

SEC. 551. No person is eligible to hold the office of Inspector of Boilers and steam machinery who has not had at least five years of actual practice in the operations of steam engines, steam boilers and steam machinery, or who is directly or indirectly interested in the manufacture or sale of boilers or steam machinery, or any patented article required to be sold.

SEC. 558. It is the duty of the owners or managers of steam boilers to allow the Inspector free access to the same, and the engineer operating the same must assist the Inspectors in their examinations and point out any defects they may know in the boilers or machinery in their charge. Any engineer not complying with this section shall have his license revoked or be suspended.

SEC. 559. No person must be granted a license to operate steam boilers or steam machinery under the provisions of this Article who has not been examined by an Inspector and found competent to perform the duties of an engineer and receive from such Inspector a written or printed license so to act. Any person who operates any steam boiler or steam engines without first obtaining a license from an Inspector or an Assistant Inspector is guilty of a misdemeanor.

SEC. 561. Whenever complaint is made against an engineer, holding a license from the Inspector, that he, through negligence, want of skill, or inattention to duty, permitted his boiler to burn, or otherwise become in a bad condition, or that he has been found intoxicated while on duty, it is the duty of the Inspector or Assistant Inspector to make a thorough investigation of the charge, and upon satisfactory proof of such charge to revoke the license of such engineer. The Inspector and Assistant Inspector, must as often as convenient publish a notice in some suitable newspaper, stating upon what days they will be in certain specified localities, and that they will then, and at the time and place specified in such notice, receive applications and make examination for the purpose of granting engineer's certificates, and that they will examine all boilers subject to inspection in the vicinity of the place appointed.

SEC. 562. In making the inspection of boilers and machinery herein provided for, the Inspector may act jointly or separately; but the Inspector or Assistant Inspector, making such inspection must in all cases subscribe and make oath to the certificate of inspection, and report such action. Any Inspector or Assistant Inspector who

willfully and falsely certifies regarding any steam boilers or their attachments, or grants a license to any person to act as engineer, contrary to the provisions of this Article, punishable under the provisions of Section 635, of the Penal Code.

SEC. 564. If any person who has applied for a license as a first or second or third class engineer, under the provisions of this Article, and has been rejected, feels aggrieved, he may at any time after the lapse of ten days, and within ninety after the date of his rejection, by petition in writing, set forth the causes of his grievance and demand another examination. Such petition must be addressed to and served upon the Inspector, and shall be duly verified by the rejected applicant, and accompanied by the required fee for a second examination. Within two days after receiving such petition and fee, it is the duty of the Inspector to notify the applicant in writing that on a day certain, which shall not be less than five or more than forty days after the date of the service of the petition upon such Inspector, he will be ready to grant him another examination. At least two days before the day set for the examination the applicant must designate in writing to such Inspector the name of an engineer holding a certificate of equal grade with the one applied for, and such engineer may present himself upon the day and at the hour fixed for the re-examination.

SEC. 565. Upon the same day, or any day prior to the date set for such examination, the Inspector and selected engineer must in writing agree upon and designate and notify a third disinterested engineer holding a license applied for by the rejected applicant, to sit with them. On the day and hour set for such re-examination all three of such board, that is, the Inspector and the engineer selected by the applicant and the engineer agreed upon by them, must proceed to carefully re-examine such applicant and fully and fairly test his qualifications and capabilities to receive a license such as he has applied for. After such examination is completed, if a majority of such board decide that such applicant is entitled to the license he has applied for, or any license of inferior grade, the Inspector must without delay issue a certificate accordingly, but if a majority of such board reject the applicant, it is a final rejection, and he must not be granted another examination for the space of ninety days after such last rejection, when he may again apply to the Inspector or Assistant Inspector as provided by Section 563, of this Article, and no person must be granted more than one re-examination before a board



under the provisions of this Article. One-half of the fee which may have accompanied any rejected applicant's petition for re-examination must be awarded by the Inspector to each of the engineers who sit on any such examining board, and in case the applicant is granted a license the fee paid when he was first rejected is the fee for the issuing of such license granted by any board. In case any engineer selected or agreed upon as by this section is provided fails or neglects to appear or serve, another may be selected in his place in the manner herein provided.

SEC. 568. It is unlawful for any person in the State to operate a stationary boiler or steam engine, or any boiler or steam engine other than railroad locomotives or other engines or boilers exempted in Section 566, of this Article, without a license granted under the provisions of this Article. The owner, renter, or user of the steam engine or boiler is equally liable for violations of this section. But in case of accident, sickness, refusal to work, or any unforeseen prevention of the licensed engineer employed by any owner, renter, or user of a steam engine or boiler, operated in remote districts, which would retard the work to be performed, the owner, renter, or user, may, for the space of four weeks, employ any person not having a license, whom he may consider competent to run the engine or boiler. The person so employing the unlicensed engineer must immediately notify the Inspector or Assistant Inspector.

SEC. 569. All violations of the provisions of this Article are provided for in the Penal Code, Sections 633 to 635 and 657.

SEC. 633. Every person who operates any steam boiler or steam engine, without first obtaining a license from the Boiler Inspector or Assistant Boiler Inspector, as required by law, is punishable by a fine of not exceeding fifty dollars, or by imprisonment in the county jail not exceeding thirty days, or both.

SEC. 634. Every owner, renter, or user of a steam boiler who uses a boiler or steam engine which has become unsafe from any cause or has been notified by the Boiler Inspector or his assistant, that such boiler or steam engine is unsafe from any defect, or that repairs are necessary, and after such notice uses the same, is punishable by imprisonment in the county jail not exceeding three months, or by fine not exceeding two hundred and fifty dollars, or both.

SEC. 635. If the State Boiler Inspector, or assistant inspector, willfully and falsely certifies regarding any steam boiler, steam

engine, or its attachments, or grants a license to any person to act as engineer, contrary to law, he is punishable by imprisonment not exceeding one year in the county jail, or by a fine not exceeding five hundred dollars, or both.

SEC. 657. Every person who violates any of the provisions of Article XV., Chapter III., Title I., Part III., of the Political Code, relating to boiler inspection, except as otherwise provided, is guilty of a misdemeanor.

SEC. 2. That Section 553 of the Political Code be, and the same is hereby amended so as to read as follows:

SEC. 553. The Inspector of Boilers must have his office at the seat of government, and must adopt rules as nearly uniform as possible for the inspection of steam boilers, and prescribe the nature and extent of the examination of applicants for licenses and adopt such rules for the issuing thereof as are required by the provisions of this Article, and must adopt such rules as he may deem necessary to carry into effect the provisions of this Article, and distribute copies of such rules among the engineers, superintendents of mines and mining companies of the State, and all persons having charge or control of steam machinery.

SEC. 3. That Section 560 of the Political Code be, and the same is hereby amended so as to read as follows:

SEC. 560. Engineers entrusted with the care and management of steam machinery as specified in Section 559, must be divided into three classes, namely: First class engineers, Second class engineers, and Third class engineers. No license must be granted to any person to perform the duties of First class engineer who has not taken and subscribed an oath that he has had at least three years experience in the operation of steam boilers and steam machinery, or whose knowledge and experience is not such as to justify the belief that he is competent to take charge of all classes of steam boilers and steam machinery. No license must be granted to any person to act as Second class engineer who has not taken and subscribed an oath that he has had at least two years' experience in the operation of steam boilers and steam machinery, and is, on examination, found competent to take charge of all classes of steam boilers and steam machinery, not exceeding one hundred horse power. No license must be granted to any person to act as Third class engineer, who has not served at least one year as fireman under a competent engineer and found upon examination to be sufficiently acquainted with

the duties of an engineer to be entrusted with steam boilers and steam machinery, not exceeding twenty horse power. All firemen who have charge of steam boilers as to the regulation of feed, water and fuel, where the boilers are so situated as not at all time to be under the eye of the engineer in charge, are required to pass a Third class engineer's examination and procure the same kind of a license. Engineers holding licenses of any of the above classes and who are entrusted with the care and management of traction engines or engines or boilers on wheels, other than locomotives, are required to pass an examination as to their competency to operate such class of machinery and to procure a license to be known as a Traction License. Such Traction License shall not entitle the holder thereof to operate any other class of steam machinery specified in Section 559. No license shall be granted to any person to act as traction engineer who is not found, upon examination, to be sufficiently acquainted with the duties of a Traction Engineer to be entrusted with the care of traction engines.

SEC. 4. That Section 563 of the Political Code be, and the same is hereby amended so as to read as follows:

SEC. 563. The Inspector or Assistant Inspectors are authorized to charge a fee of ten dollars for the inspection of each single boiler and its steam connection and five dollars for each additional boiler when connected. The fee for the inspection of each traction engine or boiler on wheels shall be ten dollars. The fee for the inspection of boilers in incorporated cities shall be five dollars. Such fees shall be payable at the time of the delivery of the Inspector's certificate of inspection. The fee for the examination of applicants for engineers licenses is \$7.50 for the First class engineers, \$5.00 for Second class engineers, \$3.00 for Third class engineers and \$3.00 for Traction engineers; to be paid at the time of the application for license. In case of the failure of any applicant to pass a successful examination ninety days must elapse before he can again be examined as an applicant for license in the class for which he was examined. But the Inspector may grant to the applicant a lower grade of license than applied for upon such examination. All certificates of inspection and engineers license must be displayed in a conspicuous place in the engine room.

SEC. 5. That Section 566 of the Political Code be, and the same is hereby amended so as to read as follows:

SEC. 566. This Article does not apply to locomotives in Montana,

nor to boilers used for heating purposes in private residences, nor to any boiler having capacity of only five horse power or less, nor are locomotive engineers or persons operating any of the engines or boilers herein exempted from the operation of this Article, required to procure licenses from the Inspector or Assistant Inspectors. It shall be the duty of the owner or user of any traction engine or boiler on wheels, other than locomotives, to notify the Inspector of the location of such boiler on or before the first day of June in each year. Any owner or user of such engine or boiler failing to so notify the Inspector shall be punished by a fine of not less than twenty-five dollars nor more than one hundred dollars.

SEC. 6. That Section 567 of the Political Code be, and the same is hereby amended so as to read as follows:

SEC. 567. All certificates of license to engineers of all classes shall be renewed yearly. The fee for renewal is \$1.00 in all cases. Any engineer failing to renew his license as herein provided, or at least within thirty days thereafter, must forward the fee for an original license of the same grade before license can be re-issued. All moneys collected by virtue of this Article must be paid into the State Treasury at least as often as once in each month. The Inspector of Boilers must make an annual report to the Governor on the tenth day of December of each year, setting forth the moneys collected by himself and the Assistant Inspectors from any and all sources, and the disbursements, and the number of boilers inspected by them, and the number and grades of licenses issued by them and to whom, and the general results and experiences of his office, and such recommendations as to him may seem fit and proper. Said report must also refer to and account for the causes of any boiler explosions which may have occurred in the State during the year, and the loss of life and property resulting therefrom.

## OHIO.

SECTION 1. That it shall be unlawful for any person to operate a stationary steam boiler or engine in the state of Ohio, of more than thirty (30) horse power, except boilers and engines under the jurisdiction of the United States, and locomotive boilers and engines, without having been duly licensed so to do as herein provided. And it shall be unlawful for any owner or user of any steam boiler or engine, other than those excepted, to operate or cause to be operated

such steam boiler or engine without a duly licensed engineer in charge.

SEC. 2. For the purpose of facilitating an efficient and thorough examination of engineers throughout the State of Ohio, and to provide for a more adequate protection of life and property, the state is hereby divided into eight (8) districts, to be designated by the chief examiner.

SEC. 3. The governor of the state of Ohio, with and by the advice and consent of the senate, shall appoint one chief examiner of steam engineers, and said chief examiner of steam engineers, with the approval of the governor, shall appoint eight (8) district examiners of steam engineers; provided, however, that not more than four (4) of said examiners so appointed shall be members of any one of the political parties. The chief examiner and district examiners shall be competent and practical steam engineers, and shall hold their offices for a term of three (3) years from the first day of May, 1902, after their respective appointments, and until their successors are appointed and qualified. The first appointment hereunder shall be made within sixty days from the passage of this act. In case of the resignation, removal or death of the chief examiner, or any district examiner, the vacancy shall be filled in the manner as provided for the original appointment, for the unexpired term only, of the position so made vacant.

SEC. 4. Each candidate for chief examiner shall have had not less than ten (10) years' experience as a practical steam engineer, previous to his appointment, and each candidate for district examiner shall have had not less than seven (7) years' experience as a practical steam engineer, previous to his appointment.

SEC. 5. The chief examiner and district examiners shall give their whole time and attention to the duties of their offices respectively. The chief examiner shall be located in Columbus, and shall have his office in the state house, where shall be kept the records of his office, and for the purpose of keeping such records shall be allowed one clerk at a salary not to exceed \$1,000 per annum, said clerk to be appointed by the chief examiner, with the approval of the governor, and to give a bond in the sum of \$1,500. The chief examiner shall issue such instructions, make such rules and regulations for the government of the district examiners, not inconsistent with powers and duties vested in them by law, as shall secure a uniformity of action and proceedings throughout the different dis-

tricts. The chief examiner shall receive a salary of \$1,800 per annum, and the district examiners shall each receive a salary of \$1,200 per annum, which salary and all necessary traveling and office expenses incurred by said examiners in the discharge of their duties, shall be paid out of the treasury of the state from any fund therein not otherwise appropriated, on the warrant of the auditor, on the presentation to him of the proper vouchers. The chief examiner shall give a bond in the sum of \$3,000, and the said district examiners shall each give a bond in the sum of \$2,000. All bonds required by this act to be given shall be approved by the governor.

SEC. 6. Any person who desires to act as a steam engineer shall make application to the district examiner of steam engineers for a license so to act, upon a blank furnished by the examiner, and shall successfully pass an examination upon the following subjects: the construction and operation of steam boilers, steam engines, and steam pumps, and also hydraulics, under such rules and regulations as may be adopted by the chief examiner, *which rules and regulations, and standard of examination, shall be uniform throughout the state.* If, upon such examination, the applicant is found proficient in said subjects a license shall be granted him to have charge of and operate stationary steam boilers and engines of the horse power named in this act. Such license shall continue in force for one year from the date the same is issued, *provided, however, the district examiner may, upon written charges, after notice and hearing, revoke the license of any person guilty of fraud in passing the examination, or who has become insane, or who is addicted to the liquor or drug habit to such a degree as to render him unfit to discharge the duties of steam engineer.*

SEC. 7. Any person to whom a license is issued under the provisions of this act shall *upon application* at the expiration of one year from the date thereof be entitled to a renewal thereof for one year, unless the district examiner of his district, *for the cause or causes set out in Sec. 6 of this act, upon notice and hearing, should refuse such renewal.*

SEC. 8. The fee for examination of applicants for license shall be two dollars (\$2), *to be paid at the time of the application for examination, and two dollars (\$2) for each renewal of license.* All fees collected and received by the district examiners from the issue of licenses and the renewal of the same, shall be, on or before the 5th day of each month, remitted to the chief examiner at Columbus,

together with a monthly report of the business of their offices. Said chief examiner shall pay into the treasury, to the credit of the general revenue fund, all moneys and fees by him received from the district examiners, and, on or before the 10th day of each month, said chief examiner shall file a monthly report with the governor, of the business of his office and the amount of money received by him and paid into the state treasury.

SEC. 9. Any person dissatisfied with the action of any district examiner in refusing or revoking a license, *or a renewal thereof*, may appeal to the chief examiner, who shall investigate the action of said district examiner; if, upon such investigation, said chief examiner finds that the district examiner was justified, *for the cause or causes set out in Sec. 6 of this act*, in refusing or revoking such license, *or renewal thereof*, he shall sustain the district examiner in his action; but should said chief examiner find that the district examiner was not justified in refusing or revoking such license, *or renewal thereof*, he shall order said district examiner to issue a license to the person making the appeal.

SEC. 10. It shall be the duty of each district examiner to notify every person operating a boiler or engine in his district mentioned in Section 1, and not included in the exceptions therein specified, to apply for a license under this act, and to give such person a reasonable opportunity to take the examination therefor; provided, that all persons holding a license issued to them under the act of the general assembly of the state of Ohio, passed March 1st, 1900 (94 O. L., 33-36) shall not be required to submit to a further examination during the period covered by such license first issued. But such former license shall evidence the qualifications of such person to operate the kind of steam plant, and for the period as therein designated, unless such license is sooner revoked for cause.

SEC. 11. Any owner, user or engineer, who after being notified, as provided in Section 10 of this act, violates any of the provisions of this act, shall be fined not more than \$100 nor less than \$10. The examiners shall have the authority and are hereby empowered to visit any and all engine rooms or boiler rooms in the state, at all reasonable hours.

SEC. 12. It shall be the duty of every engineer to exhibit his license under glass in a conspicuous place in his engine room. Any violation of this section shall be punishable by a fine not exceeding \$5.00.



**PENNSYLVANIA.****FOR SECOND AND THIRD CLASS CITIES.**

SECTION 1. Be it enacted,&c., That it shall be unlawful for any person or person to have charge of or to operate a steam boiler or steam engine over ten-horse power, in cities of the second and third class of this Commonwealth, except locomotive boilers, used in transportation, and steam engines and steam boilers, carrying less than fifteen pounds pressure per square inch, unless said person or persons are upwards of twenty-one years of age, and holds a license, as hereinafter provided for; and it shall be unlawful for any owner or owners, user or users, of any steam boiler or steam engine over ten horse power, other than those excepted above, to operate or cause to be operated a steam boiler or steam engine without a duly licensed engineer.

SEC. 2. All persons desiring authority to perform the duties of an engineer shall apply to the boiler inspector of such cities, who shall examine the applicant as to his knowledge of steam machinery and his experience in operating the same, also the proofs he produces in support of his claim, and if, upon full consideration, the inspector is satisfied that the applicant's character, habits of life, knowledge and experience in the duties of an engineer, are all such as to authorize the belief that he is a suitable and safe person to be entrusted with the powers and duties of such a station, he shall grant him a license, upon the payment of three (3) dollars, authorizing him to be employed in such duties for the term of one year, and such license shall be annually renewed, without examination, upon the payment of one (1) dollar, provided it is presented for renewal within ten days after its expiration. Licenses so granted shall be graded into two classes: One of which shall entitle the licensee to have charge of or to operate stationary steam boilers and steam engines only; the other of which shall entitle the licensee to have charge of or to operate portable steam boilers and steam engines only; such licenses shall not be transferred from one grade to the other without a re-examination, said re-examination to be conducted without cost to the licensee.

No person shall be eligible to examination for a license unless he furnishes proof that he has been employed about a steam boiler or steam engine for a period of not less than two years, prior to the date of application, which must be certified to by at least one employer and two licensed engineers.

SEC. 3. The inspector shall investigate all acts of incompetency or misconduct committed by any licensed engineer while acting under the authority of his license, and shall have power to summon before him any witnesses within his respective city, and compel their attendance by a similar process as used in the State courts to compel the attendance of witnesses; and he may administer all necessary oaths to any witnesses thus summoned before him, and after reasonable notice in writing, given to the alleged delinquent, of the time and place of such investigation, such witnesses shall be examined, under oath, touching the performance of his duties by any such licensed engineer, and if the inspector shall be satisfied that such licensed engineer is incompetent, or has been guilty of misdemeanor, negligence, unskillfulness, or has endangered life, or wilfully violated any provision of this law, he shall immediately suspend or revoke his license, as the facts of the case may require.

SEC. 4. Every engineer who receives a license shall, before entering upon his duties, make oath before the inspector, to be recorded with the application, that he will faithfully and honestly, according to his best skill and judgment, without concealment or reservation, perform all the duties required of him by law.

SEC. 5. Every engineer who shall receive a license shall, when employed about any steam plant, place his certificate of license, which shall be framed under glass, in some conspicuous place about the engine or boiler, where it can be seen at all times; and any neglect to comply with this provision by any engineer shall be deemed a misdemeanor, and, upon conviction thereof, he shall be subject to a fine of not exceeding one hundred dollars, or the revocation of his license, or both, in the discretion of the court.

SEC. 6. All engineers licensed under the provisions of this law shall assist the inspector in his examination of any boiler under his charge, and shall point out all defects and imperfections known to them in the boilers or machinery, and, in default thereof, the license of any such engineer or engineers, so neglecting or refraining shall be revoked by the inspector.

SEC. 7. Every person who has been employed as a steam engineer, in the city in which he applies for a license, for a period of four years next prior to the passage of this act, and who files with his application a certificate of said fact, under oath, accompanied by a statement from his employer or employers verifying the same, shall be entitled to a license without further examination.

SEC. 8. It shall be the duty of an engineer, when he assumes charge of boilers and machinery, to forthwith thoroughly examine the same, and if he finds any part thereof in bad condition, caused by neglect or inattention on the part of his predecessor, he shall immediately report the facts to the inspector, who shall thereupon investigate the matter, and if the former engineer has been culpably derelict of duty he shall suspend or revoke his license.

SEC. 9. It shall be the duty of every licensed engineer, when he vacates a position as engineer to notify the boiler inspector of such fact, and any failure to comply with this provision shall be punishable by a suspension of the license for such period or periods as the boiler inspector may determine.

SEC. 10. Every owner or lessee, or agent of the owner or lessee, of any steam boiler or steam engine over ten horse power, embraced within the provisions of this act, or any appliances connected therewith and every person acting for such owner, lessee or agent, is hereby forbidden to delegate or transfer, in any manner whatever, the responsibility or liability for the management or operation or the maintenance in good condition and repair, of any such steam boiler or steam engine, or appliances connected therewith, to any person or persons other than a licensed engineer in charge thereof, as shown by compliance with section two of this act; and any violation of the provisions of this section shall be deemed to be a misdemeanor, to be punished by a fine not exceeding five hundred dollars (\$500), or by imprisonment not exceeding three months, or both, at the discretion of the court: Provided, however, That on the purchase, or agreement to purchase, a new steam boiler or steam engine over ten horse power, or appliances connected therewith, the builder or builders thereof may contract or agree with the purchaser or purchasers to accept said responsibility for a period not to exceed sixty days; provided that there is to be a licensed engineer in attendance thereon.

SEC. 11. All fees received under this act shall be paid into the treasury of the city wherein the license is granted.

SEC. 12. Any violation of the provisions of section one of this act shall be deemed a misdemeanor, to be punished by a fine not exceeding five hundred dollars, or by imprisonment not exceeding three months, or by both, at the discretion of the court.

SEC. 13. Any officer charged with a duty under the provisions of this act, who shall fail to discharge the same or comply with the

requirements thereof, shall, upon conviction, be punishable by a fine not exceeding five hundred dollars, or by imprisonment not exceeding three months, or both, at the discretion of the court.

SEC. 14. This act shall not affect any third class city until the councils of said city shall, by ordinance, provide for the creation of the office of boiler inspector therein.

### TENNESSEE.

SECTION. 1. Be it enacted by the General Assembly of the state of Tennessee, That a Board of Inspectors is hereby created in cities and taxing districts having a population of 30,000 or over by the Federal census of 1880, or any further census, the city or taxing district Boiler Inspector and two practical steam engineers to constitute said Board of Inspectors shall be appointed by the Mayor or President, with the consent of the city Board of Aldermen or Taxing District Board of Fire and Police Commissioners and Board of Public Works. Their duties shall be to examine into qualifications of applicants for license to act as engineers of steam plants. One of the number shall act as secretary and keep minutes of proceedings, etc. He shall give bond in the sum of \$1,000 for the faithful discharge of his duties.

SEC. 2. Be it further enacted, That any engineer appointed on this Board must have at least six years' experience as practical steam engineer, and must be a man of sober and steady habits.

SEC. 3. Be it further enacted, That the Board shall hold a session at least twice each month for the purpose of receiving applications for license, and a majority of the Board shall constitute a quorum for the transaction of business. The secretary shall keep a register of the names of all applicants, designate those found qualified and those found not qualified. Said Board shall grant certificates of license for one year from date thereof to all applicants who, upon examination, shall have the skill, experience and habits of sobriety requisite to perform the duties of an engineer. Said Board shall vise all engineers' licenses presented by the owners thereof, granted to them by the United States laws, without charge. Said United States license shall have the same effect as license granted by the Board. All certificates of license shall be signed by at least two members of the Board. A full Board by unanimous vote may revoke the license of any engineer for insobriety or neglect of his duties when in charge of a steam plant in use, but no license shall be re-

voked for cause without first giving the accused party an opportunity to be heard in his own defense.

SEC. 4. Be it further enacted, That any owner or user of steam boilers of a capacity of not over 75 square feet of heating surface, a pressure of not over 25 pounds to the square inch, and all boilers carrying a less pressure than 15 pounds per square inch used for heating purposes only, may obtain a permit from the Board to employ a careful and trustworthy person instead of a licensed engineer, such person to be recommended by two citizens, one of whom shall be a steam user or a licensed engineer. The Boiler Inspector shall have power to revoke such permit for cause. When boilers are used for engines run day and night, the owner or user of same may employ some trustworthy person in place of a licensed engineer, not exceeding twelve hours at a time under the instructions of a licensed engineer in charge. In case the owner or user of any boiler for cause be deprived of the service of a licensed engineer, he may put a careful and trustworthy person in charge for a time not exceeding six days. Any violation of this section shall be deemed a misdemeanor, punishable by a fine of not less than \$25 nor more than \$200.

SEC. 5. Be it further enacted, That every owner or user of any boiler or boilers or steam generating apparatus of over 10-horse power, shall, when said apparatus is in use, employ at least one licensed engineer, except as provided by section 4, and any owner or user of steam power who shall neglect or refuse to employ a licensed engineer as herein provided shall be deemed guilty of a misdemeanor, and on conviction thereof, shall pay a fine of not less than \$50 nor more than \$300.

SEC. 6. Be it further enacted, That every applicant for a license who fails to pass the examination of the Board is required to wait two weeks before again making application for a license, and the Board shall give him another examination. Every applicant for a license must make application on a blank furnished by the Board for that purpose. Applicants must at least have two years' experience at mechanical or steam engineering, and must state his experience on the blank. All applications must be signed by two citizens, one of whom must be a steam user or licensed engineer, who shall go before the Board and make oath that the statements set forth in such applications are true facts. Every engineer licensed by the Board is required to notify the Board when he accepts or leaves his employment, and the location of the plant in his charge. Every licensed

engineer shall devote at least eight hours out of every twenty-four to the duties of the plant or building where he is employed as engineer, and if he neglects or fails to comply with this section, or if intoxicated while in the discharge of his duties, he shall be deemed guilty of a misdemeanor, and on conviction thereof shall be fined not less than \$10 nor more than \$100, and shall have his license revoked for not less than one month. The fee for each license or renewal shall be \$5, to be used to defray the expenses of the Board, said fee to be paid the same as the city or taxing district privilege taxes are paid, and receipt for same indorsed upon the certificate, but no certificate shall be valid until said fee shall have been paid. The Board shall make such rules and regulations for their government as they shall deem proper, not inconsistent with this act. The Board shall make a quarterly report to the legislative or city council, giving the number and names of applicants for license, the number rejected, and the number granted certificates. Such report shall be signed by the full Board and be open to the inspection of all parties interested. Each member of the Board shall receive \$1 for attendance at each meeting of the Board, to be paid out of the funds received for fees for licenses issued.

#### RULE.

Engineers taking charge of a plant must notify secretary immediately, and engineers leaving one plant to take charge of another, must notify secretary of Board ten days previous.

SEC. 7. Be it further enacted, That this act shall take effect from and after its passage, the public welfare requiring it; provided, however, that this act shall only apply to engineers or persons operating stationary engines.

#### BALTIMORE, MD.

SECTION 1. Be it enacted by the General Assembly of Maryland, that a new article be known as stationary engineers, and be numbered as an article 101, be, and the same is hereby added to the Code of Public General Laws, whose provisions shall be as follows:

SEC. 2. The Governor shall biennially appoint two engineers who have had not less than ten years' practical experience in running steam engines, boilers and appliances pertaining to stationary or portable engines, and who have been residents of this state for not less than five years next preceding the date of their appointment, who shall constitute and be known as the "Board of Examining Engineers". The parties so appointed before entering on their

duties, shall make an oath before a justice of the peace that they will faithfully perform their duties of their office without fear, partiality, or favor; and that they will not during their term of office accept any money, gift, gratuity or consideration from any person, and shall give bond to be approved by the Comptroller of the State, in the sum of three thousand dollars each, for the faithful discharge of their duties, and before entering on said discharge of their said duties, the said inspectors shall provide themselves with an office in a proper location in the city of Baltimore, and shall give notice by publication at least five days through the two daily papers having the largest circulation in said city, of the time and manner in which they will make the examinations hereinafter provided for.

SEC. 3. The said board shall have general supervision of all stationary engineers within the state of Maryland, except as hereinafter provided; it shall be their duty to examine all engineers of the age of twenty-one years and upward, who shall apply to them for examination; and to give to all parties so examined, a certificate of proficiency if found proficient and to refuse to give such certificate if not found proficient, and the parties so receiving such certificate shall pay to said board the sum of three dollars for each certificate so issued, and for all renewals of all grades the sum of one dollar and fifty cents; said certificates shall be of three grades; a certificate of first grade will permit the holder thereof to take charge of any plant of machinery, the second grade to take charge of any plant of machinery from one to five hundred horse power, and the third grade to take charge of any plant of machinery from one to thirty horse power, and the said certificate shall run for the term of one year, and shall be renewed annually, the term of beginning of said certificate to be from the date of the examination of the respective applicant; provided that no engineer having such certificate shall have charge of more than one plant of machinery at the same time unless said plant be of the same company and at one and the same place; and no substitute who had not been examined and received the certificate aforesaid shall be placed in charge of machinery by an engineer who has.

SEC. 4. All persons twenty-one years of age or upward, who after the adoption of this act, shall desire to fill a position as a stationary engineer, must make application to the "Board of Examining Engineers" for examination and certificate of proficiency, before he can pursue his avocation as such engineer, provided that



any engineer employed as stationary engineer at the works of any steam railway, or any engineer employed as such with any stationary engine, who at the time of the adoption of this act shall have been employed at the same place for the term of six months or more, shall not be required to apply for such examination and certificate; but whenever such engineers shall remove from the place where so employed they shall be, and are hereby required to make application for examination and certificate (to said board of examining engineers) as hereinbefore provided, and provided, further, that the provisions of this section shall not apply to persons running engines and boilers in sparsely settled country places, where not more than twenty persons are engaged in work about such engines and boilers, nor engineers running country saw and grist mills, threshing machines, and other machinery of similar character, nor to marine engineers engaged in steamboats, ships and other vessels run by steam, nor to those engaged as locomotive engineers of any steam railway company. And in the event of any charge being made to said board of any engineer who may hold a certificate from them, of being intoxicated, while in charge of an engine or boiler, or of the neglect of duty on the part of such engineer or engineers, it shall be the duty of said board to immediately hear such charge, and if sustained annul such certificate. The certificate granted to the respective applicants must be framed and kept in a conspicuous place at such place as such persons may be respectively at work. Any person violating the provisions of this act shall be deemed guilty of a misdemeanor, and upon trial and conviction before a justice of the peace shall be fined not less than twenty-five dollars nor more than fifty dollars, one-half of which shall be paid the informer and the balance to the state.

SEC. 5. Said board of examining engineers shall meet at their office in the city of Baltimore for the purpose of examining applicants at least once in every week, and at a specified hour and day shall sit until all applicants shall be examined, and in the event of inability to examine all the applicants on the regular day of meeting, they shall continue their sessions for each successive day until the same shall be completed, they shall visit and inspect the running and management of all steam plants wherein the engineers are required to be examined as hereinbefore provided not less than once every six months, and in the event of their finding on such examination that the engineer or engineers in charge of such plant or ma-

chinery are not running and managing the same with proper skill and care they shall report the same to the State Board of Boiler inspectors for their action; and said board of examining engineers are hereby invested with power and authority to enter all such premises and make the examination herein provided for, and any owner of any such premises who shall refuse to allow them to enter and make such examination shall be deemed guilty of a misdemeanor and be punishable upon trial and conviction as provided in the preceding section.

SEC. 6. The said board of examining engineers shall receive an annual salary of fifteen hundred dollars each, and shall have power to employ a clerk or secretary at a salary not exceeding the sum of one thousand dollars per annum, and such expense shall be allowed said board as shall be incurred in traveling expenses, office rent, stationery and printing, and for which they shall produce to the Comptroller of the State Treasury proper vouchers, provided, however, that no appropriation shall be made nor no moneys paid by the State Treasurer to said board for or on account of said salaries and expenses but that the same shall be paid to them by and from the fees received for the examination and certificates hereinbefore provided for; and provided, further, that the said board shall keep a strict account of all fees received for such purposes, and quarterly, under oath or affirmation, return said statement to the Comptroller of the State Treasury, and whenever the amount is in excess of the salaries and expenses hereinbefore provided for they shall forward such excess to said Comptroller, and they shall keep a certificate book, with the certificates therein duly numbered, and of which to each certificate there is a corresponding stub to be filled in to correspond in all respects to the certificate issued, and subject to the inspection of the Comptroller when he may deem the same necessary. Provided, however, that the provisions of this act shall only apply to Baltimore City.

SEC. 7. And be it enacted, that this act shall take effect from the date of its passage.

Approved, April 7th, 1892.

BUFFALO, N. Y.

CHAP. 557.

7. To prohibit or regulate the use of locomotive engines and of steam, and to regulate other motive power and speed on any por-

tion of any railroad within the City; to require any railroad company to keep a flagman or gates at each railroad crossing of a public street, to provide for the inspection of steam engines and boilers used in the city, and to prohibit the use of unsafe ones, and to prohibit any person *who has not been duly licensed under such regulations as the Common Council may prescribe*, from running any steam engine, stationary or otherwise, in the City, except the engineers of duly incorporated steam railroads while engaged in operating or running the locomotive engines of said railroads, and engineers duly licensed by the authorities of the United States, while engaged in operating or running engines upon the waters under the jurisdiction of the United States or of the State of New York; to classify such engineers and to provide for the appointment by the Mayor of such inspector, examiners and employes as may be required to carry out such ordinance. A marine engineer holding a United States license shall, on presenting such United States license to an examiner of the City of Buffalo, appointed pursuant to the provisions of this section, be given an examination, and if found qualified shall be given a stationary engineer's license, of the same relative grade as the United States license that the applicant holds, or of a grade sufficiently high to allow him to operate the plant that he was operating at the same time that this act goes into effect; provided, however, that such marine engineer shall be a resident of the City of Buffalo for a period of three years before making such application, and a citizen of the United States. Such examination to be held in writing, and if any engineer so examined shall be dissatisfied with the decision of the said examiner he shall have the right to appeal to the Mayor; and the Mayor shall appoint a board of three disinterested engineers, which may be composed of two chief engineers in active service, and a mechanical engineer of this City, to hear and determine said appeal; and in case the person appealing be a marine engineer, one member of the board shall be a man holding a license as a chief engineer of steam vessels, issued by the United States, operating a steam plant in the City of Buffalo; to prohibit or regulate the keeping and conveying of gunpowder and other explosive substances, and other dangerous fluid or material, and to provide for the inspection, forfeiture and destruction of the same;

17. There is hereby created the office of examiner of stationary engineers, who shall be appointed by the Mayor on the first Mon-

day in January, 1892, or as soon thereafter as may be, and there, after, at any time the office may become vacant.

Said examiner shall be a citizen of the United States, and shall have not less than ten years' practical experience as a stationary engineer, and shall hold office until his successor shall be appointed and qualified. Before entering upon the duties of his office he shall give a bond to the City of Buffalo in the sum of (\$5,000) with two or more sureties, to be approved by the Mayor, conditional for the faithful performance of his duties.

18. It shall be the duty of the examiner to make such rules and regulations as shall be necessary to properly carry into effect the provisions of this article. He shall keep a record of the transactions of his office, and shall render annually before the first of January a report of the same to the Mayor.

It shall be his duty to give proper notice of the time when, and place where, he shall examine all persons who shall appear before him for examination, as to their qualifications to operate and have charge of steam engines and boilers in this City, and he shall issue a license to applicants, as this ordinance provides.

19. Every person within the City limits of the City of Buffalo in charge of or operating any steam engine or steam boiler, (except persons operating locomotive steam engines, or marine engines, or persons licensed as engineers by the authorities of the United States, or persons in charge of any steam engine or steam boiler in any of the public school buildings, or any engineer while in the employ of the fire department of the city,) shall appear in person before the examiner, within ninety days after the passage of this ordinance, for examination as to his qualification as a stationary engineer, and, if found qualified, shall be duly licensed as this ordinance provides. But such persons who have charge of any steam boiler or steam engines in public school buildings of the city shall be examined as to their qualifications to have charge of the same.

20. No person shall be granted a license unless he be an actual resident of the City of Buffalo, and shall be a citizen, or shall have declared his intention to become a citizen of the United States.

21. Any person found in charge of, or operating any steam engine or steam boiler, in a state of intoxication, shall forfeit his license for any term not less than six months, and it shall be the duty of the examiner to cancel or revoke the license of any person

licensed under the provision of this ordinance, who shall be found incompetent or negligent in the performance of his duties as an engineer.

22. Any owner, agent, or user, of any steam engine or steam boiler, in operation, who neglects or refuses to employ a licensed engineer, to have charge of or operate said steam engine or steam boiler, shall forfeit and pay a penalty of not less than \$10, or more than \$250 for each offence.

23. Any person taking charge of or operating any steam engine or boiler, within the City limits of the City of Buffalo, without having a proper license, shall forfeit and pay a penalty of not less than \$10 or more than \$50.

24. All licenses must be renewed annually, and no person shall have charge of or operate more than one steam plant.

25. A fee of \$3 shall be collected by the examiner upon issuing a license and \$2 for each annual renewal and all fees collected shall be paid by the examiner to the City Treasurer on or before the fifth day of each month, and his failure to do so shall be a sufficient cause for his removal. The examiner shall also report to the Common Council every three months, or oftener if required, the number of licenses issued and the amount of fees collected by him.

26. All persons licensed under the provisions of this ordinance shall be classified and graded according to the capacity and horse-power of a steam engine, steam boiler or steam plant of which they shall be found competent to take charge, namely: Chief Engineer, First Class Engineers, Second Class Engineers and Special Engineers.

Chief Engineers to take charge of and operate any size steam plant. First Class Engineers to take charge of any steam plant not exceeding 150 horse-power, and Second Class Engineers to take charge of and operate any size plant not exceeding 75 horse-power, and Special Engineer to take charge only of a certain steam engine or boiler to be stated in the license, such steam engine or boiler not to exceed ten horse-power; and such license shall not be used for a longer term than one year. A permit may be issued to the owner of a steam engine or boiler not exceeding 10 horse-power used by him in his business upon the payment by him of a fee of one dollar therefor.

27. Steam boilers used in private dwellings only for heating or cooking, where the water returns automatically to the boiler with-

out the aid of a pump, or injector or inspirator, are exempt from the provisions of this ordinance.

28. Engineers duly licensed under the provision of this ordinance shall have their licenses suitably framed, under glass, and hung up in a conspicuous place, at or near their engine or boiler.

### CHICAGO, ILL.

SEC. 2. Said Board of Examiners shall be provided with suitable quarters by the Commissioner of Public Works. Said Board shall make and enforce such rules and regulations for its government and that if its employes as may be deemed proper and desirable, not inconsistent with the provisions of this ordinance and the general law. Said Board, or a majority thereof, shall hold daily sessions, of such duration as may be deemed requisite, between the hours of 9 a. m. and 10 p. m., for the purpose of examining and determining the qualifications of applicants for licenses for engineers and for persons having charge of steam boilers as provided herein.

SEC. 3. The Board of Examiners, or a majority thereof, shall have the power to examine into the qualifications of applicants to grant licenses, and, for cause, to suspend or revoke the same. Every application for a license must be made on the printed blanks furnished by the Board of Examiners, and that for an Engineer must be accompanied by a fee of two (\$2) dollars and that for a boiler or water tender must be accompanied by a fee of one (\$1) dollar.

SEC. 4. An applicant for an engineer's license must be a machinist or engineer, having at least two years' practice in the management, operation or construction of steam engines and boilers. An applicant for a boiler tender's license must be a person who has a thorough knowledge of the construction, management and operation of steam boilers. Each applicant must state upon the blank the extent of his experience; must be at least 21 years of age, a citizen of the United States, or have declared his intention to become such; must be of temperate habits and good character; all of which must be vouched for in writing by at least two citizens of Chicago or may be verified under oath by the applicant when required by the Board of Examiners.

SEC. 5. The Board shall have power to suspend the license of an engineer or of a boiler or water tender for permitting water to get too low in boiler; for carrying a higher pressure of steam than allowed by law; for an absence from his post of duty; or for any vio-

lation of the provisions of this ordinance, or other neglect or incapacity; provided, however, that no license shall be suspended or revoked without first giving an accused party an opportunity to be heard in his own defense. When a license of an engineer or boiler or water tender shall be revoked, no license shall be issued to the same person for the first offense for 30 days thereafter; for the second offense for 90 days; for any offense thereafter his license shall be permanently revoked, and then, only upon full compliance with the conditions and provisions prescribed for an original license. In case of suspension or revocation of a license, the fee thereof shall be forfeited to the city.

SEC. 6. Every certificate or license issued to an engineer or boiler or water tender shall be signed by the majority of the Board of Examiners, sealed with an imprint of the Board's seal, and attested by the Clerk.

SEC. 8. If any member of the Board of Examiners, or any person or employe connected therewith, shall at any time, or under any pretense whatever, himself, or through any other person or persons receive, or cause to be received any money, gift or other valuable thing or consideration, except as herein provided, for the purpose of officially favoring any applicant, or for the purpose of deceiving or defrauding any person or persons, or shall issue a license authorizing any person or persons to act as engineer or boiler or water tender without first having examined and found him or them qualified for such service, in accordance with the provisions and conditions of this ordinance, then, in such case, the member or members of the Board, or other person so offending shall be removed from office by the Mayor, and ever after be debarred from holding any position, official or otherwise, in the service of the City of Chicago, and any applicant who shall himself, or through any other person, offer, or cause to be offered, any money or other valuable consideration to said Board, or any member thereof, or any person connected therewith, for any official act or favor, shall ever after be debarred from receiving any license under this ordinance.

SEC. 9. No steam engine or boiler subject to the provisions of this ordinance shall be used, managed or operated in the City of Chicago, except by an engineer or boiler or water tender as provided herein, and who shall have been duly licensed as provided herein and who shall have and exhibit a certificate thereof. Any person who shall take charge of or manage or operate any steam engine or boiler,



or any portion of a steam plant in the City of Chicago without a proper and valid license, as provided by this ordinance, shall for each and every offense, be subject to a fine of not less than twenty dollars nor more than fifty dollars, and any person, agent, firm, company or corporation owning or controlling any steam engine, boiler, or other steam plant, who shall authorize or permit any person or persons without a proper and valid license as required herein to take charge of or to manage or to operate any steam engine or boiler or any portion of a steam plant, shall, for each and every offense, be subject to a fine of not less than fifty dollars nor more than two hundred dollars, and each day's violation of the terms of this ordinance, or any of them, shall constitute a separate offense.

SEC. 10. It shall be the duty of the Board of Examiners to see that each boiler plant in the City of Chicago shall have a licensed engineer or boiler or water tender or both as provided herein, in charge at all times when working under pressure, whose certificate of qualification shall be displayed in a conspicuous place in the engine or boiler room, and each engineer and boiler tender shall devote his entire time while boilers are working under pressure, to the duties of the plant under his charge. Any person who has charge of a steam boiler, whose duty it is to keep up the water in such boiler, shall be deemed a boiler or water tender within the meaning of this ordinance, but the provisions hereof for the examination, licensing and regulation of boiler or water tenders shall only apply to boiler or water tenders, who are in charge of a steam boiler or boilers which are detached from the engine room or so far removed therefrom or otherwise circumstanced or located as to render it difficult for the engineer in charge of the plant to give it or them his personal attention and supervision.

SEC. 11. Every engineer licensed under this ordinance shall, within the first ten days of January and July respectively, of each year, make a written report to the Board of Examiners of the condition of the engine, boilers and steam apparatus comprising the plant under his charge, and every boiler or water tender shall at the same time make to said Board of Examiners a similar report of the condition of the boiler or boilers and steam apparatus under his charge. All additions or changes made in any plant must be reported by the engineer, and the boiler or water tender, to the Board of Examiners within ten days thereafter.

SEC. 12. The engineers in charge of locomotives shall be ex-

empt from the provisions of this ordinance, and all boilers used for heating private dwellings, hot houses, conservatories and other boilers carrying not more than ten pounds of pressure of steam per square inch, and the persons operating them shall be exempt from the provisions of this ordinance. The police are instructed to report all infractions of this ordinance coming to their notice.

SEC. 13. Said Board hereby created shall not in its salaries and expenditures exceed the amount received from license fees; shall quarterly and yearly make a written report under oath to the City Comptroller of all receipts and expenditures, and pay over to the City of Chicago all balances in their hands. The salary of the Secretary of the Board shall be seventeen hundred (1,700) dollars per year, and he shall devote his whole time seeing to the enforcement of the provisions of this ordinance, and each of the other members shall receive a salary of fifteen hundred (1,500) dollars per year, from the first day of March, A. D. 1892. In case the receipts from the license fees shall be insufficient to pay above salaries and the legitimate expenses of said Board, their salaries above mentioned shall be diminished pro rata to the amount of the deficiency.

### DENVER, COLO.

#### STATIONARY ENGINEERS.

SEC. 1. Board of examiners created—qualifications—duty. There shall be appointed by the Mayor, a board of examiners, consisting of the city boiler inspector and two practical engineers, who shall be competent judges of the construction of steam boilers and engines, and experienced in their operation, whose duty it shall be to examine applicants for licenses as engineers and boiler or water tenders in accordance with the rules and regulations of this ordinance, and issue certificates of qualification. Each certificate so issued by them shall expire one year from the date of issue.

#### COMPENSATION, TERM OF OFFICE.

SEC. 1. The terms of office of said appointees shall be for the period of four years, with power of suspension or removal by the Mayor at any time for cause, provided, the term of office of the board first appointed shall expire with the present city administration; and the members of said board shall receive four dollars per day for each and every day necessarily consumed in the performance of services as herein provided for; Provided, that the total sum of money to be paid any one member of said board shall not

exceed in the aggregate the sum of two hundred dollars per annum.

SEC. 2. Rules and regulations—sessions. Said board of examiners shall be provided with suitable quarters by the commissioner of supplies. Said board shall make and enforce such rules and regulations for its government and that of its employees as may be deemed proper and desirable, not inconsistent with the provisions of this chapter. Said board, or a majority thereof, shall hold weekly sessions, of such duration as may be deemed requisite, between the hours of nine o'clock A. M. and ten o'clock P. M., for the purpose of examining and determining the qualifications of applicants for licenses as engineers or as boiler or water tender as provided herein.

SEC. 3. Examination—license—license fee. The board of examiners, or a majority thereof, shall have power to examine into the qualifications of applicants, grant licenses, and, for cause, suspend or revoke the same. Every application for a license shall be made on the printed blanks furnished by the board of examiners, and shall set forth the name, age and citizenship of the applicant, and the extent of his experience. An application for an engineer's license shall be accompanied by a fee of two dollars and that for a boiler or water tender's license shall be accompanied by a fee of one dollar.

SEC. 4. Applicant's qualification. An applicant for an engineer's license shall be a machinist or engineer, having at least two year's practice in the management, operation or construction of steam engine and boilers. An applicant for a boiler tender's license shall be a person who has a thorough knowledge of the construction, management and operation of steam boilers. Each engineer and boiler or water tender, so to be licensed, shall be at least twenty-one years of age, shall be of temperate habits and good character, all of which shall be vouched for in writing by at least two citizens of Denver, or shall be verified under oath by the applicant when required by the board of examiners.

SEC. 5. License—suspension—revocation. The board of examiners shall have power to suspend the license of an engineer or of a boiler or water tender for permitting water to get too low in the boiler; for carrying a higher pressure of steam than allowed by law; for an absence from his post of duty; or for any violation of any of the provisions of this ordinance, or other neglect or incapacity; Provided, however, that no license shall be suspended or revoked without first giving the accused person an opportunity to be heard in his own defense. When the license of an engineer or boiler or

water tender shall be revoked for the first offence, no license shall be issued to him for thirty days thereafter; for the second offence for ninety days; for any offense thereafter his license shall be permanently revoked.

SEC. 6. License—attestation of. Every certificate of license issued to an engineer or boiler or water tender shall be signed by the majority of the board of examiners, and sealed with an imprint of the board's seal and attested by the city clerk.

SEC. 7. Records. The board of examiners shall cause to be kept a full and correct detailed record of its official proceedings, including the names of the members of the board, the names, ages, and residences of all applicants for licenses, the number issued and rejected, the number licenses suspended, renewed or revoked, the cause therefor, and the names of the persons forfeiting licenses.

SEC. 8. Bribery—fraud. If a member of the board of examiners, or any person or employe connected therewith, shall at any time, or under any pretense whatever, himself or through any other person or persons receive, or cause to be received, any money, gift or other valuable thing or consideration, for the purpose of officially favoring any applicant, or for the purpose of deceiving or defrauding any person, or shall issue a license authorizing any person to act as engineer or boiler or water tender without first having examined and found him qualified for such service, in accordance with the provisions and conditions of this ordinance, then, in such case, the member or members of the board or other person so offending shall be removed from office by the mayor, and ever after be debarred from holding any position, official or otherwise, in the service of the city, and any applicant who shall himself, or through any other person, offer, or cause to be offered, any money, or other valuable consideration to said board, or any number thereof, or any person connected therewith, for any official act or favor, shall ever after be debarred from receiving any license under this ordinance.

SEC. 9. Unlicensed engineer. No steam engine or boiler subject to the provisions of this ordinance shall be used, managed or operated in the city, except by an engineer or boiler or water tender as provided herein, who shall have been duly licensed as provided herein and who shall have and exhibit a certificate thereof. Any person who shall take charge of or manage or operate any steam engine or boiler, or any portion of a steam plant in the city without a proper and valid license, as provided by this ordinance shall, for

each offense, be fined not less than twenty dollars nor more than fifty dollars, and any person or corporation owning or controlling any steam engine, boiler or other steam plant, who shall authorize or permit any person without a proper and valid license, as required herein, to take charge of, manage or operate any steam engine or boiler or any portion of a steam plant, shall, for each offence, be fined not less than fifty dollars nor more than two hundred dollars and each day's violation of any of the provisions of this ordinance shall constitute a separate offence.

SEC. 10. Renewal of licenses—fees paid. All such licenses may be renewed from year to year upon payment of the license fee above specified and without further examination, unless the applicant applies for a different class or grade of license.

SEC. 11. Duty of board to enforce. It shall be the duty of the board of examiners to see that each boiler plant in the city shall have a licensed engineer or boiler or water tender, or both, as provided herein, in charge at all times when working under pressure, whose certificate of qualification shall be displayed in a conspicuous place in the engine or room, and each engineer or boiler or water tender shall devote his entire time, while boilers are working under pressure, to the duties of the plant under his charge.

Any person who has charge of a steam boiler, whose duty it is to keep the water in such boiler shall be deemed a boiler or water tender, within the meaning of this ordinance. But the provisions hereof for the examination, licensing and regulation of boiler or water tenders shall apply only to boiler or water tenders who are in charge of a steam boiler or boilers which are in charge of the plant to give such boiler or boilers his personal attention and supervision.

SEC. 12. Exempt persons. Engineers in charge of locomotives and engineers or boiler or water tenders in charge of boilers carrying not more than ten pounds pressure of steam per square inch shall be exempt from the provisions of this ordinance.

SEC. 13. Report of fees collected, etc. The board of examiners shall upon the last day of each calendar month pay over to the city treasurer all fees, charges, moneys, or valuable consideration of any kind whatsoever paid to or collected or received by said board of examiners of stationary engineers by reason of or for or on account of the performance of any duties required to be performed by said board; and each payment shall be accompanied by a report

in writing directed to the Mayor and verified by affidavit of the president or secretary of said board, showing in detail all fees, charges, moneys or valuable consideration of any kind paid to or collected or received by said board during the month ending the day of such report; and such report shall contain such other and further information as the Mayor may require.

In case the receipts from the license fees which shall be paid over by said board to the city treasurer shall be insufficient to pay the salaries, they shall be diminished pro rata according to the amount of the deficiency.

SEC. 14. Neglect to pay. Any refusal, failure or neglect on the part of any member of the said board to pay over to the city treasurer all fees, charges, moneys or valuable consideration of any kind collected or received by him, or to submit a report in writing in manner and form as hereinbefore provided for, shall be construed as a resignation on the part of such member of the said board and the Mayor may thereupon declare his office vacant, and appoint a successor.

#### DETROIT, MICH.

SEC. 18. No person shall have charge of or operate a steam boiler in the City of Detroit without a license. Whenever any person claiming to be qualified to operate a boiler shall apply in writing, on blanks provided for the purpose, for a license, the inspector shall examine him and consider the proof offered in support of his claims, and, if after full and careful examination, the inspector is satisfied that his knowledge and experience render him competent to handle boilers with safety to life and property, and that his character and habits are such as to cause the belief that he is a safe person to be entrusted with the responsibilities of such a position, he shall issue a license certificate to that effect, designating the class in which he is authorized to operate.

In case steam users want an inspection of their boilers on Sundays the inspectors may make an extra charge of two (\$2.00) dollars for each boiler inspected.

There shall be three grades of engineers' license. First-class shall be unlimited as to the number of boilers and pressure, and shall be granted to any citizen having five years' experience in the care of steam boilers, providing he can pass a satisfactory examination. Second-class shall be limited to 75-horse-power, and shall be

granted to any citizen having an experience of three years in the care of steam boilers, provided he can pass a satisfactory examination. Third-class shall be limited to 25-horse-power, and shall be granted to any citizen having experience in firing steam boilers for two years, provided he can pass a satisfactory examination. Any person who makes application for a certain class and fails to procure it for any cause, the inspector can assign him to the class in which his examination entitles him, and he cannot make application again for a period of less than three months. Any man having a second or third-class license can act as an assistant to a first-class man. It shall be considered a violation of this ordinance for a person having charge of a steam plant to leave it without a competent person in charge, and on conviction he shall be punished by a fine of not more than ten dollars, or on failure to pay, shall be confined in the house of correction for a period of not more than 30 days. In case any applicant shall feel aggrieved at the decision of the Boiler Inspector, he may appeal to the Common Council.

Incompetency, intemperance, inattention to the duties of his position, absence from his post of duties without providing a competent substitute, failure to keep the boilers and all their equipment in his charge in good repair, and proper working order, shall be regarded as sufficient cause for withholding or revoking a license by the inspector.

All licenses and certificates of inspection must be displayed prominently in the engine or boiler room during the period for which they are issued. Fireman's license must be displayed in the boiler room.

The inspector shall prepare and have properly printed general directions for the handling of boilers and boiler appliances which shall be displayed in the boiler room.

SEC. 19. The fee for examining applicants for licenses to operate engines and boilers, and for the certificates, shall be one (\$1) dollar; and for each fireman's license \$1. This fee shall be paid before an examination can be demanded, but one-half of the amount paid shall be refunded if the license is refused. Refusal to grant a license of a grade applied for shall not debar the applicant from applying for a license of a lower grade, but no applicant shall, after having been refused a license be again examined for a license of the same class within a period of three months from date of refusal.

SEC. 20. It shall be regarded as a misdemeanor to tamper with or in any way injure any safety valve, safety water column or other

appliance with the purpose or effect of rendering it inoperative or in any way impairing its efficiency. Any such misdemeanor shall be punishable by a fine not exceeding \$100 or imprisonment in the Detroit House of Correction for a period not exceeding three months, or both at the discretion of the court.

SEC. 21. If any person shall on or after thirty days subsequent to the passage of this ordinance, operate any steam boiler in the city of Detroit without having complied with the requirements of this ordinance, or shall keep in use any boiler after receiving notice from the inspector that it is unsafe at greater pressure than the inspector may stipulate, or shall operate any boiler at a greater pressure than authorized, or shall employ any person without a license to operate any boiler within the city of Detroit, he or they shall be deemed guilty of a misdemeanor, and upon conviction shall be sentenced to pay a fine not exceeding \$1,000 and to undergo imprisonment in the Detroit House of Correction for a term not exceeding six months and any person so offending shall be liable for all damages resulting directly or indirectly from such acts.

SEC. 22. The provisions of this ordinance shall not apply to boilers upon locomotives, boilers under the jurisdiction of the United States, and boilers operated by the Fire Department of the city of Detroit, or boilers used in private residences for heating purposes.

SEC. 23. In making inspections the inspector shall apply the hammer test, and also when deemed necessary by said inspector of the hydrostatic pressure in relation of 150 pounds to 100 pounds, as the working power allowed such steam boilers.

SEC. 24. The Common Council can at any time remove the inspector when there is proof to show that he is either negligent in inspection or partial in the granting of engineers' licenses, according to the charter.

### GOSHEN, IND.

#### ORDINANCE NO. 104.

#### *An Ordinance relating to licensing Stationary Engineers.*

Be it ordained by the Common Council of the City of Goshen, Ind.:

SECTION 1. It shall be unlawful for any person to have charge of or operate a steam boiler or engine in this city, except locomotive boilers and engines, boilers to private residences, or boilers of less than eight (8) horse-power, unless he holds a license as hereinafter provided, and it shall be unlawful for any owner or user of any



steam boiler or engine, other than those above excepted, to operate or cause to be operated a steam boiler or engine for a period of more than one (1) week without a duly licensed engineer in charge.

SEC. 2. Any person desiring to act as an engineer shall make application to so act, to the examiner of engineers upon blanks furnished by the examiner, and, if upon examination, the applicant is found trustworthy and competent, a license shall be granted to said applicant; such license shall continue in force for one (1) year unless after proper hearing it is sooner revoked, for intoxication or other sufficient cause, and may be renewed each year upon application to the authority granting the same, or at such time as may be determined by said authority.

SEC. 3. License shall be granted according to the competency of the applicant, and shall be divided into classes as follows:

Class 1. Engineers' license of this class to be unlimited as to horse-power.

Class 2. Engineers' license of this class shall be limited to one hundred and fifty (150) horse-power.

Class 3. Engineers' license of this class shall be limited to fifty (50) horse-power. Engineers holding second or third-class licenses may act as assistant engineers in a plant of any capacity, provided the man in charge holds a first-class license.

SEC. 4. The fee for examinations for applicants shall be one (\$1.00) dollar, to be paid at the time of the application for examination, and one (1) dollar for each renewal of license. All sums paid as aforesaid shall be received by the examiner, who, after paying all expenses that may be incurred, shall retain the balance as his compensation; it being understood that the city is to be at no expense in carrying out this law.

SEC. 5. The mayor, with the consent of the council, shall appoint an engineer to act as examiner. Said appointment to be made at the first meeting of the council in June of each year. But said examiner may be removed at any time if, in the opinion of the mayor or council, he is not performing his duties satisfactorily.

SEC. 6. It shall be the duty of the examiner to notify every person operating a boiler or engine mentioned in Section one (1) and not included in the exceptions therein specified to apply for a license under this act, and to give such person a reasonable opportunity to take an examination. The examiner shall issue a license or shall

notify the applicant of his rejection, within forty-eight (48) hours after his examination.

SEC. 7. Any person dissatisfied with the action of the examiner in refusing or revoking a license, may appeal to the mayor, who will appoint two (2) licensed engineers, to act with the examiner in the case, their decision to be final.

SEC. 8. Whoever, after being notified, as provided in Section six (6), intentionally violates the provisions of Section one (1) of this act, shall be punished by a fine not exceeding one hundred dollars (\$100) or by imprisonment not exceeding three (3) months.

SEC. 9. This act shall take effect on the 1st day of December, 1895, and any person applying for a license as engineer on or before that date, shall be deemed to have complied with the provisions of this act until his application is passed upon or rejected by the proper authorities.

#### JERSEY CITY, N. J.

SECTION 1. No person shall be the engineer of, or shall have charge of or operate any steam boiler or steam engine in the City of Jersey City, for a period exceeding one week, who shall not have a license certificate authorizing him to have charge of or to operate such engine or boiler, from the Board of Examiners hereinafter constituted.

SEC. 2. The Board of Aldermen shall, within sixty days after passage of this ordinance, appoint a Board of Examiners, which shall consist of three members, one of whom, at least, shall be an engineer who has had ten years' experience in the operation of steam boilers or steam engines, who shall hold office for a period of two years, or until their successors are appointed, and shall grant the licenses hereinafter provided for, and serve without pay.

SEC. 3. Before any person shall be employed as an engineer of any such steam boiler or engine, or shall have charge of or operate any such boiler or engine, he shall make a written application to said Board of Examiners for the license hereinbefore mentioned, which application shall be accompanied by references as to his character and ability, and the filing of such reference with such Board shall be considered as a compliance with the provisions of this ordinance, for thirty days thereafter, or until his said application shall have been passed upon by said Board, and said applicant, after the filing of said references shall have the right to operate

and have charge of any such engine, boiler or plant until his application shall have been passed upon by said Board.

SEC. 4. Every person who shall satisfy said Board of Examiners that he is a safe and competent person to operate and have charge of the steam plant, boiler or engine specified in his application, shall, on payment of one dollar (\$1.00) to the City Clerk for the benefit of the city, receive a license permitting him to operate the same for one year, unless sooner revoked. For annual renewals of such licenses a fee of one dollar (\$1.00) shall be paid, and no additional hearings shall be required, unless in the judgment of said board it shall be necessary. Said licenses must be framed and hung in a conspicuous place in the plant, or upon or near the engine in charge of such licensee.

SEC. 5. Said Board may at any time revoke any license issued, on account of inebriety, incompetency or negligence of the holder of any license or for any other good cause, and no license shall be issued to any licensee whose license shall have been revoked, during the next six months ensuing, after which the license revoked may be renewed, if, in the judgment of the Board, the cause of its revocation no longer exists.

SEC. 6. If said Board shall refuse to grant to any applicant a license, no license shall be issued to him for the next six months following the refusal of his application, but after said period said applicant may make another application, and if qualified, may be granted a license.

SEC. 7. Whenever said Board shall refuse to grant any application, or shall revoke any license, they shall give immediate notice of such refusal or revocation to the applicant or licensee, and such applicant or licensee may appeal from the decision of such Board to the Board of Aldermen, in which case said applicant or licensee shall file his appeal with the Board of Aldermen within ten days after receiving notice of the decision of said Board, and the Board of Aldermen may confirm or reverse the decision of said Board, and issue such license.

SEC. 8. Any person found guilty of any violation of the provisions of this ordinance, shall be fined not more than twenty dollars (\$20.00), nor less than ten dollars (\$10.00).

SEC. 9. This ordinance shall not apply to railway locomotives nor engineers employed thereon, nor to steam vessels coming under the jurisdiction of the United States Board of Supervising Inspec-

tors, when employed upon the vessels to which said license applies. Nor shall it apply to boilers in private residences or buildings for heating purposes, unless, in the opinion of said Board such boiler is so equipped and run as to endanger public safety unless operated by a licensed engineer.

SEC. 10. Any engineer in charge of any steam engine, who shall abandon it while in operation, without leaving a person in charge of the same, who shall, in the opinion of the employer of said engineer, or of the owner of such engine, be competent to take charge of the same, shall be fined not more than twenty dollars (\$20.00), nor less than ten dollars (\$10.00).

### KANSAS CITY, MO.

SECTION 1. The Mayor shall appoint by and with the consent of the Council a boiler inspector, who shall be a practical boiler maker, and competent to test and inspect steam boilers and all steam generating apparatus under pressure. Said boiler inspector is authorized to appoint, by and with the consent of the Mayor, one deputy inspector, and perform the same duties in case of temporary absence from the city, sickness or other disability of the boiler inspector. The boiler inspector shall hold his office for the term of one year, from the second Monday in April, after the annual election in each year, and until his successor is appointed and qualified. The said deputy inspector shall serve without compensation from the city, and hold his office until removed by the Mayor. The Mayor shall also designate and appoint by and with the consent of the Council two persons, both of whom shall be practical and mechanical engineers, having had at least five years' experience in the business, who, in connection with the boiler inspector shall constitute a board of engineers.

SEC. 2. The boiler inspector shall devote his time and attention to the duties of his office, and also perform the duties of Secretary of the Board of Engineers. He shall carefully inspect and test every stationary boiler and steam generating apparatus under pressure, used for stationary power, as provided by this ordinance, including all the attachments and connections located within the City of Kansas, at least once annually. He shall keep a complete and accurate record of the names of all owners or users of steam boilers, giving a full description of the boilers inspected by him, and the amount of pressure allowed the date when last tested.

He shall notify all owners or users of boilers of the time when a re-inspection and test will be made, at least ten days before the expiration of each certificate of inspection and appoint a day on which he will make a re-inspection. The manner of inspection shall be substantially as follows: The boiler inspector shall have the option of taking the hammer test or the hydrostatic test. If the hammer test be used, the examination shall be thorough and searching upon every part of the boiler, both internally and externally, including all fittings and attachments. If the hydrostatic test be used, each boiler shall be tested by hydraulic pressure one-fourth greater than the ordinary working pressure used, and the certificate of inspection herein provided shall state the maximum pressure at which any boiler may be worked. In case a defect shall be discovered in any boiler or attachments thereto, the boiler inspector shall report the same to the owner or user of said boiler or boilers, and state the facts of the case in writing, giving a description of the particular locality in which each defect may be found, and whether of a dangerous character necessitating immediate repair. If the boiler inspector shall at any time find a boiler, which in his judgment is unsafe, after inspecting the same, he shall condemn its further use. All boilers to be tested by hydrostatic pressure shall be filled with water by the owners or users, and they shall furnish the necessary labor required to work and handle the pumps in applying the test. When leaks occur which prevent a successful test, the boiler inspector shall make a second test, upon receiving notice that all leaks have been repaired. If, upon making the second test, the boiler or boilers are still defective, he shall for each subsequent test collect an additional inspection fee, but in no case shall he give a certificate until fully satisfied of the safety of the boiler or boilers. All certificates of inspection shall be for one year and no longer.

SEC. 3. The boiler inspector and board of engineers shall be provided with all needed blanks and stationery needful for their official duties. Said board shall provide for regular sessions, and the boiler inspector shall act as secretary and keep minutes of the proceedings. Said board shall convene for business once in each month to examine into qualifications of applicants for engineer's licenses. The boiler inspector shall have power to call a special session of the board, if deemed necessary. A majority of the members of the said board shall constitute a quorum for the transaction of busi-

ness. The secretary shall keep a register of the names of all applicants, designating those found qualified and those not qualified. Said board shall grant certificates of license, charging therefor each applicant the sum of five dollars for the first certificate, three dollars to be deposited with the clerk of the board; each applicant to be allowed three trials. If he then fails to pass a satisfactory examination, the applicant shall then forfeit the money deposited with the clerk of the board; but if the applicant has the capacity, skill, experience and habits of sobriety requisite to perform the duties of an engineer, and shall pass examination successfully, the board shall grant him a license for the term of one year upon the payment of an additional two (\$2) dollars. And any person thus qualified shall not be refused a license. Renewal of license will be granted to applicants, upon payment of two dollars and fifty cents (\$2.50), if renewed on or before the next regular meeting of the board of engineers after its expiration, said regular meeting to take place on the first Tuesday of each month. Said board of engineers shall vise all engineer's licenses presented by the owner thereof, granted him by the United States laws, which shall have the same effect as licenses granted by the board, and the engineers whose licenses are vised by the board shall be subject to the provisions of this ordinance. All certificates of license granted shall be signed by not less than two, and may be signed by all members of the board. The board of engineers may adopt such rules and regulations as they shall deem proper, not inconsistent with this ordinance and the general law. A full board of engineers, by a unanimous vote, shall have power to revoke an engineer's license for inebriety, dishonesty or neglect of his duties when in charge of an engine in use, and may order the reinspection of any boiler whenever they shall deem it necessary for the public safety, but no license shall be permanently revoked for cause without first giving the accused party an opportunity to be heard in his own defense.

SEC. 4. Any owner or user of a steam boiler feeling aggrieved on account of any decision of the boiler inspectors, may appeal to the board of engineers, and, upon a thorough and careful investigation of the matter at issue between the parties, a majority of the board shall decide the question, which decision shall be final in all cases. But the boiler inspector shall not have a voice in any matter in which there is an appeal from his decision.

SEC. 5. In case the user or owner of any boiler shall for any

cause be deprived of the services of a licensed engineer, he must notify the boiler inspector at once and may procure an experienced and careful person in charge for a time not exceeding three days. Where boilers are used and engines run night and day the owner or user of steam power must employ two (2) licensed engineers who may stand watch alternately. Any person or persons intending to put a boiler or boilers into their establishment or building must apply to the boiler inspector for a permit before setting up any boiler; and any one failing or refusing to comply with the same shall be deemed guilty of a misdemeanor and upon conviction shall be fined not less than fifty (50), nor more than three hundred (300) dollars.

SEC. 6. All owners or users of any stationary boiler or boilers, or steam generating apparatus under pressure, shall have the same inspected and tested as herein provided, before and while being used, and at least once a year thereafter; and for every neglect or refusal to have such inspection and test, they shall be deemed guilty of a misdemeanor, and upon conviction thereof, shall be fined in a sum no less than twenty-five (25) dollars nor more than two hundred (200) dollars. If owners or users of steam boilers, or engineers in charge of the same, shall carry a greater pressure than is allowed, in the certificate of inspection granted by the boiler inspector, they or either of them, shall be deemed guilty of a misdemeanor, and on conviction thereof, shall be fined in the sum of not less than fifty dollars (\$50) nor more than three hundred dollars; and in case of an engineer, his license shall be revoked; or if such owners or users shall use any boiler which has been condemned as unsafe by the boiler inspector, they shall be deemed guilty of a misdemeanor, and upon conviction thereof, shall be fined in a sum not less than one hundred dollars (\$100) or more than five hundred dollars (\$500). Every owner or user of steam boilers or steam generating apparatus carrying not above ten (10) pounds pressure only, shall have the safety valve of such boiler set by the boiler inspector who shall place an apparatus over such safety valve securely sealed, and the owners or users of said boilers must provide the apparatus necessary to securely seal such safety valves.

SEC. 7. Every owner or user of any boiler or boilers, or steam generating apparatus of over five horse power when the boilers are in use, must employ a competent engineer having a certificate of license from the board of engineers; and every owner or user, as

aforesaid, who shall neglect or refuse to employ a licensed engineer, as herein provided, shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall pay a fine of not less than twenty-five dollars (\$25), nor more than three hundred dollars (\$300).

SEC. 8. The auditor shall issue to the comptroller certificates of inspection of steam boilers, regularly numbered and duly signed by each of said officers, in denominations proper to meet the requirements of this ordinance, but blank as to the owner's or user's name, date, pressure, locality and number of the boiler. The comptroller shall issue such certificates of inspection to the boiler inspector, and charge them to him. The boiler inspector shall collect from all owners or users of boilers the following inspection fee, and no more: For every boiler, five dollars (\$5), whether set single or in sets. Where sets of boilers are built one above another, only those immediately over the fire-bed shall be counted. The boiler inspector, upon receipt of the money, for the inspection fee, shall promptly deliver to every owner or user of any boiler, certificates of inspection of the boilers inspected by him or his assistant. Every such certificate of inspection shall be properly filled up, as herein provided, and signed by said boiler inspector. Said certificate of inspection shall be displayed in some prominent place near where the boilers are used. The boiler inspector shall make monthly returns to the city comptroller of all moneys collected, giving the names of the steam users, from whom collected, and shall pay the moneys collected into the city treasury at least once in each month.

SEC. 9. The boiler inspector shall make a semi-annual report to the comptroller, reporting the full number of boilers in the city, the number in use, the number inspected and the number condemned as unsafe. He shall report the date, name of the owner and the locality of every boiler accident, whether it be from a rupture or collapse of flue, or explosion of the shell of the boiler, stating his belief as to the cause thereof. He shall further report the number and names of applicants for engineers' licenses, the number of rejected and the number of granted certificates. Such report shall be signed by the full board of engineers, and open to the inspection of all persons interested.

SEC. 10. The boiler inspector shall receive a salary of eighteen hundred dollars (\$1,800) per annum, subject always to the further provisions of this ordinance, which shall be in full for all services rendered by him. He shall give bond to the city of Kansas City in



the penal sum of three thousand dollars (\$3,000), with two or more securites to be approved by the comptroller, conditioned for the faithful, skillful and impartial performance of the duties of his office, and that he will fully account for and pay into the city treasury all moneys received by him, as herein provided. The deputy inspector appointed under this chapter shall give a bond in the penal sum of one thousand dollars (\$1,000), with the same conditions as required of the boiler inspector, and subject to the approval of the comptroller. The members of the Board of Engineers, except the boiler inspector, shall each receive three dollars (\$3) for each regular session at which they are present. They shall give bond in like manner as the boiler inspector, with same conditions, and in the penal sum of five hundred dollars (\$500), said bond to be approved by the comptroller. The board of engineers and deputy inspector appointed under this chapter shall each possess the qualifications prescribed in Section ten (10), Article four (4) of the charter.

SEC. 11. If the boiler inspector or his deputy shall neglect or fail to discharge his or their duty, by reason of inebriety, or by neglecting to perform the duties of inspector, or to pay over moneys received for inspection as provided in this ordinance, or in any manner use their position for corrupt or dishonest purposes, he or they shall be deemed guilty of a misdemeanor, and on conviction thereof, be fined in a sum not less than one hundred dollars (\$100), and forfeit his or their office.

SEC. 12. All engineers, engines and boilers of the fire department of Kansas City, and the locomotive boiler used on railroads, and steam boilers supplied with water automatically, when used only for heating dwelling houses, and not carrying under pressure of over ten pounds of steam per square inch, are exempt from the provisions of this ordinance.

SEC. 13. All expenditure for the inspection of boilers shall be charged and paid as expenses of the office of boiler inspector and board of engineers, and all bills before being paid shall be audited and approved, subject to provisions of this ordinance and the city charter.

SEC. 14. Every applicant for a license who fails to pass the examination of the board is required to wait four (4) weeks before again making application for a license, and the board shall then give

him another examination; any applicant failing to pass the examination after the third trial shall not be permitted to again appear before said board for six months. Every engineer licensed by the board, and every engineer whose license is vised by the board, is required to notify the boiler inspector when he accepts employment and within three (3) days thereafter the name of his employer and the location of the boilers in his charge; and every engineer who shall neglect or refuse to comply with this rule shall be deemed guilty of a misdemeanor, and, on conviction thereof shall pay a fine of not less than five (\$5) dollars nor more than ten (\$10) dollars. Every engineer licensed by the board, or whose license is vised by the board, shall semi-annually report to the boiler inspector during the first three days of the months of January and July the condition of the boilers, pumps and connections under his charge; and any licensed engineer who shall fail or neglect to comply with this rule shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall pay a fine of not less than five (\$5) dollars nor more than ten (\$10) dollars. An application for a renewal of a license shall be made not later than the first regular meeting of the board next following the expiration of the license, and unless the above provision is complied with the board may, at its discretion, order a new examination. Any steam user failing to place or put in a conspicuous place in engine room or boiler house the boiler inspector's certificate shall be deemed guilty of a misdemeanor, and, upon conviction thereof, shall pay a fine of not less than twenty-five dollars (\$25) nor more than one hundred dollars (\$100). Any person who violates or fails to comply with the provisions of this chapter, shall be guilty of a misdemeanor, and, on conviction thereof, when no other fine or punishment is fixed in this chapter, be fined in the sum of not less than five (\$5) dollars nor more than fifty dollars (\$50) for each offense. The city comptroller shall immediately after the passage of this ordinance, procure ten hundred copies, to be printed for gratuitous distribution among steam users and engineers.

SEC. 15. The salary herein provided to be paid to the boiler inspector, and also the salaries of the board of engineers, shall be each paid out of the funds collected for the inspection of boilers, and for licenses issued to engineers, as in this ordinance provided, and in no case or event shall the city be liable for such salary or salaries, or any part thereof, except so far as the money paid into the city treasury under this ordinance shall be sufficient to pay said salaries herein provided to be paid.

SEC. 16. Ordinance 25,282, and all ordinances and parts of ordinances in conflict herewith, are hereby repealed.

Approved April 15, 1887.

SEC. 937. The Secretary of said board shall keep a register of the names of all applicants for license, designating those found qualified and those not qualified. Each applicant for license who shall have successfully passed an examination before said board and shall be found to have the capacity, skill, experience and habits of sobriety, requisite to perform the duties of an engineer shall receive a license from said board for the term of one year; provided that no such license shall be issued until the applicant therefor shall produce and present to said board a receipt from the city treasurer, for the sum of five dollars, which amount shall be the fee for each and every license excepting renewals thereof as hereinafter provided, and it is hereby made the duty of the city treasurer to receive and receipt for all sums of money to him paid as in this chapter provided, said receipt shall state the amount, by whom and for what paid, whether for original or renewed license or for certificate of inspection. Renewal of license will be granted to applicants upon payment of two dollars and fifty cents, if renewed on or before the next regular meeting of the board of engineers after its expiration, said regular meeting to take place on the first Tuesday of each month. Said board of engineers shall examine all engineer's licenses presented by the owner thereof granted him by the United States laws, which shall have the same effect as licenses granted by the board; and the engineers whose licenses are examined by the board shall be subject to the provisions of this chapter. All certificates of license shall be signed by not less than two and may be signed by all the members of the board. The board of engineers may adopt such rules, and regulations as they shall deem proper, not inconsistent with this ordinance and the general law.

SEC. 3. That Section 947 of the said ordinance be and the same is hereby amended to read as follows:

"SEC. 947. The city auditor shall issue to the city comptroller certificates of inspection of steam boilers, and licenses for engineers, regularly numbered and duly signed by each of said officers, in denominations proper to meet the requirements of this chapter, but blank as to the owner's, user's, or applicant's name, date, pressure, locality, number of boiler, original or renewal of license or other description, as the case may be. The city comptroller shall issue

each certificate of inspection and license to the water inspector and charge them to him, each one to be accounted for by him. The fee for inspection of boilers shall be as follows: For every boiler five dollars whether set single or in sets; where sets of boilers are set one over another only those immediately over the fire-bed shall be counted. Said fees shall be paid as hereinbefore provided."

SEC. 5. That Section 949 of said ordinance be and the same is hereby amended to read as follows:

"SEC. 949. The boiler inspector shall make monthly returns to the city comptroller of all licenses and certificates of inspection issued, giving the names of persons to whom licenses have been issued, with the number of the license, and also the names of all owners or users of boilers to whom certificates of inspection have been issued with the number thereof."

"SEC. 951. The boiler inspector shall receive a salary of eighteen hundred dollars per annum, subject always to the provisions of this chapter, which shall be in full for all services rendered by him; he shall give bond to Kansas City in the penal sum of three thousand dollars, with two or more securities, to be approved by the city comptroller, conditioned for the faithful, skillful and impartial performance of the duties of his office."

### LINCOLN, NEB.

SECTION 1. It shall be the duty of the Mayor of said City of Lincoln, Neb., by and with the consent of a majority of the members elect of the Council of said city, to appoint three persons who shall constitute a Board of Engineers. Said appointment shall be made as soon as practicable after this ordinance takes effect, and the persons so appointed shall hold their office until the next general city election in the spring of 1893 and until their successors in office are appointed and qualified. As soon as practicable, after the city election in the spring of 1893, the Mayor shall appoint three persons to constitute such Board of Engineers, who shall hold their offices for a period of one, two and three years, respectively, and until their successors in office are appointed and qualified, and thereafter it shall be the duty of the Mayor, immediately after the spring election in each year, to appoint one person as a member of said Board of Engineers, who shall hold his office for a term of three years and until his successor is appointed and qualified.

SEC. 2. Every person so appointed as a member of such Board

of Engineers shall be 'a competent and practical stationary steam engineer, having had at least five years' experience in the business and holding a first-class certificate in full force and effect issued by some authorized Board of Engineers of any city in the State of Nebraska.

SEC. 3. As soon as practicable after their appointment and qualification as hereinafter provided and within ten days from the date of their appointment, it shall be the duty of such members of said Board of Engineers to meet and organize themselves by electing one member as chairman, one member as secretary and one member as treasurer, and he shall pay over and account to the city treasurer, and they shall also provide for regular sessions of said board, which shall occur at least once in each month.

SEC. 4. It shall be the duty of the chairman of such board to preside at their meetings, and he shall sign all certificates issued to persons under this ordinance; he shall also examine all boilers as hereinafter provided, and shall perform all such other duties as may be incident to his position under this ordinance. It shall be the duty of the secretary to keep a record of all the proceedings of the board and to keep a list of the names of all persons who have been examined for positions as engineers and of those who have received certificates from this board and also of such persons to whom certificates have been refused by the board, and he shall countersign all certificates that may be issued. It shall be the duty of the treasurer to collect and receive the fee to be paid by the applicant for examination, and he shall keep a record of all moneys received and disbursed by him and account monthly for the same to the city treasurer. He shall also collect and receive the fee, hereinafter provided for the inspection of boilers, to be paid by the owner of such boiler and shall pay the same to the person making the inspection. Provided, however, that the officers of this board shall hold their respective offices in such board for the term of one year and until a new member has been appointed and qualified. And, provided, further, that the chairman shall have power to call a special meeting of the board when necessary, and that in the absence of either member of said board the remaining two members shall constitute a quorum and be authorized to transact business.

SEC. 5. It shall be the duty of the Board of Engineers upon the payment of three dollars by the applicant to examine persons touching their qualifications as engineers, who desire to act as engi-

neers and take charge of steam boilers. If the applicant passes a satisfactory examination, they shall grant and issue to him a certificate of qualification. If the applicant fails to pass a satisfactory examination, he shall not be allowed to apply again for a certificate for two months thereafter. All certificates granted shall be in force for one year from the date thereof and no longer, and any person holding a certificate from the board may have the same renewed at its expiration for a period of one year by the applicant for such renewal paying the sum of \$2; provided, however, that the person applying for such renewal is entitled thereto, and such application for renewal is made on or before the last regular meeting of the board before the expiration of the applicant's certificate. And unless the above provision is complied with, the board may, at its discretion, order a new examination.

SEC. 6. The board shall have the right to adopt such rules and regulations as they deem necessary and proper, not inconsistent with this ordinance. The full board by a unanimous vote shall have power and may revoke any engineer's certificate upon good cause being shown therefor.

SEC. 7. It shall be the duty of each engineer holding a certificate from the board, or a certificate that has been vised by the board, to display the same in some prominent place near the boiler or boilers in his charge. The board may revoke any engineer's certificate who shall fail or refuse to comply with this section.

SEC. 8. The Chairman of the Board of Engineers shall in person or by deputy, carefully inspect and test every stationary steam boiler and steam generating apparatus used under pressure located in the City of Lincoln, at least once annually. He shall keep a complete and accurate record of the names of all owners or users of steam boilers, giving a full description of the boilers inspected by him and the amount of pressure allowed, and the date when last inspected, and the owner or user of such boiler shall pay the sum of three dollars for each inspection. If after inspection the inspector shall find the boiler in a safe condition he shall issue to the owner or user of such boiler a certificate of inspection, but not until after the fee for such inspection has been collected. Any owner or user of any stationary steam boiler or boilers failing or refusing to have the same inspected, as provided in this section, shall be deemed guilty of a misdemeanor, and upon conviction, shall be fined in any sum not more than one hundred dollars. If any owner or user of a steam

boiler or boilers, or any engineer in charge of the same, shall carry a greater pressure than is allowed in the certificate of inspection, granted by the inspector, they, or either of them, shall be deemed guilty of a misdemeanor, and on conviction thereof, shall be fined not less than ten (10) dollars nor more than one hundred dollars, and in case of an engineer, his certificate shall be revoked. Or if such owners or users shall use any boiler that has been condemned as unsafe by the boiler inspector, they shall be deemed guilty of a misdemeanor, and on conviction thereof, shall be fined in a sum not less than ten dollars nor more than one hundred dollars. Provided, that any boiler which is kept insured in any reputable and legitimate insurance company requiring inspection, or boilers that are used for heating private dwelling houses only, shall be exempt from the inspection as provided in this ordinance. And it shall be the duty of any boiler inspector for any insurance company immediately after each boiler inspected by him to report in writing to the Board of Engineers, giving the name of the owner or user, the location and condition of each and every boiler inspected by such inspector. The penalty for the failure or refusal of any inspector to report as above shall be a fine of \$10 for each boiler not so reported.

SEC. 9. It shall be the duty of every person holding a certificate from this board to make a semi-annual report to the board, during the months of January and July of each year, of the condition of every boiler, pumps and connections under his charge, and a failure to do so shall be deemed under this ordinance a sufficient cause for the board to revoke the certificate held by the person thus failing to make such report.

SEC. 10. It shall be unlawful for any person to operate or cause to be operated any stationary steam boiler used to furnish steam for any purpose other than heating a private dwelling house unless there be in charge of such boiler an experienced person having a certificate from the Board of Engineers, or a certificate that has been vised by the board, and any person or persons found in charge of a boiler not having a certificate from the Board of Engineers, or a certificate that has been vised by the board shall be deemed guilty of a misdemeanor and upon conviction thereof shall be fined in a sum not less than five dollars nor more than fifty dollars for each offense. Provided, however, that any owner or user of any boiler in use which shall for any cause be deprived of the service of a person holding such certificate may procure an experienced and careful

person to take charge of such boiler for a period not to exceed ten days. Provided, further, that this does not apply to railway engineers running stationary engines in the employ of railway companies.

SEC. 11. Any person who shall violate or fail to comply with the provisions of this ordinance shall be deemed guilty of a misdemeanor, and, upon conviction thereof, where no other fine is fixed, be fined in a sum not less than ten dollars nor more than fifty dollars for each offense.

SEC. 12. Each member of the board shall receive a salary of twenty-five dollars per annum. They shall each give bond to the City of Lincoln, Nebraska, in the sum of three hundred dollars, conditioned that they will faithfully and impartially discharge the duties of their office, and that they will fully account for and pay into the city treasury once in each month all moneys received by them under this ordinance.

SEC. 13. It shall be the duty of the City Clerk to furnish the board with all necessary blanks and stationery. It shall be the duty of the secretary of the board to make a monthly report to the City Council, stating therein the nature and date of all boiler explosions and names of all persons receiving an engineer's certificate during the current month, and of the persons to whom certificates have been refused, and of all such other proceedings of the board as the Council may direct. All moneys received under this ordinance shall be applied first towards the payment of all expenses and outlays created by this ordinance, and second, the balance, if any, shall be paid into the general fund of the city by the city treasurer.

### A RESOLUTION.

Be it resolved by the Board of Engineers of the city of Lincoln, Nebraska:

FIRST. That any applicant for an engineer's certificate who shall, upon examination, satisfy the Board that he is qualified to take charge of and run any steam plant, the Board shall grant and issue to him a First Grade certificate.

SECOND. That any applicant for an engineer's certificate who shall, upon examination, satisfy the board that he is qualified to take charge of and run any steam plant up to seventy-five horse power only, the Board shall issue to him a Second Grade certificate.

THIRD. That any applicant who shall satisfy the Board, upon examination, that he is qualified to take charge of and run any steam



plant up to twenty-five horse-power only, the Board shall issue to him a Third Grade certificate.

FOURTH. That any such applicant, who, upon examination shall satisfy the Board that he is only qualified to take charge and run low pressure boilers for heating purposes that carry a pressure not to exceed fifteen pounds of steam per square inch, the Board shall grant and issue to him a certificate specified Low Pressure.

### LOS ANGELES, CAL.

#### ORDINANCE NO. 4102.

#### (New Series)

AS AMENDED BY ORDINANCES No. 4602, 5168, 5652, 6176, AND 12,297.

An ordinance providing for the inspection of steam boilers and elevators, and for the appointment of inspectors of steam boilers and elevators and also to provide for the appointment of a board of engineers in the city of Los Angeles, and the licensing of engineers in charge of steam boilers and of persons operating passenger elevators in the city of Los Angeles. The Mayor and Council of the city of Los Angeles do ordain as follows:

SECTION 1. (Appointment of Boiler Ins. and Asst.) That the City Council of the City of Los Angeles, on the taking effect of this Ordinance, shall appoint a Boiler Inspector, and an Assistant Boiler Inspector; each of whom shall be a person of approved character and habits and who shall have had at least ten years' experience as engineer or boiler maker and competent to examine elevators. Said Boiler Inspector shall receive a salary of \$145.00 a month and assistant Boiler Inspector shall receive a salary of \$110.00 payable out of the boiler inspection fund of said city.

SEC. 2. That Frank Rademacher, J. F. Connell and J. H. Maguire are hereby appointed and constituted a Board of Engineers, whose duty it shall be to examine all applicants for engineer's license also to examine applicants for elevator operator's license as hereinafter provided. Said Board shall hold one meeting on the first and third Wednesday in each month for the purpose of examining applicants for engineer's license, and shall hold one meeting on second and fourth Tuesday of each month for the purpose of examining applicants for elevator license. And shall hold as many special meetings in each month as their business may require. The members of said Board shall hold office at the pleasure of the City Council.

And shall receive such compensation for their services as is hereinafter provided.

SEC. 4. (Duties of Board of Engineers.) The Inspector and Board of Engineers shall be provided with all needed blanks and stationery necessary for their official duties, and said Inspector shall keep minutes of the proceeding of said Board and he shall act as secretary thereof. The chairman of the Board of Engineers shall have power to call a special session of the Board, whenever necessary. A majority of the members of said Board shall constitute a quorum for the transaction of business. And the said Board shall make a careful and thorough examination as to the qualifications of all applicants for engineer's license. The secretary shall keep a register of names of all applicants, designating those found qualified, and those not qualified. Said Board shall grant certificates of license to all persons found qualified and shall charge and collect from each applicant for chief or first-class license the sum of \$5.00, and from each applicant for second-class or third-class license the sum of three dollars, all sums so collected to be deposited each day with the City Treasurer to the credit of the City Boiler Inspection fund of the city of Los Angeles. Such license shall be good for the term of one year, unless otherwise revoked and shall be signed by not less than two members of said Board. The Board of Engineers may adopt such rules and regulations as they shall deem proper, not inconsistent with the provisions of this Ordinance and the general law. A full Board of Engineers, by a unanimous vote, shall have power to revoke an engineer's license for inebriety, dishonesty or neglect of his duties, when in charge of an engine in use, and may order the re-inspection of any boiler whenever they shall deem it necessary for the public safety, but no license shall be permanently revoked without first giving the accused party a chance to be heard in his own defence.

SEC. 5. Any owner or user of a steam boiler feeling aggrieved on account of any decision of the Boiler Inspector may appeal to the Board of Engineers and upon a thorough and careful investigation of the matter at issue between the parties, a majority of the Board shall decide the question, which decision shall be final in all cases.

SEC. 6. In case any owner or user of any boiler shall for any cause, be deprived of the services of a licensed engineer, he must notify the Boiler Inspector at once and may place an experienced person in charge for a time not beyond the date of the next regular meeting of the Board of Engineers. Where boilers are used and

engines run night and day, the owner or user of same, must employ at least two licensed engineers, who shall stand watch alternately. Every owner or user of any boiler or boilers or steam generating apparatus of over five horsepower, when the same are in use must employ a competent engineer, having an unexpired certificate of license, from the Board of Engineers, and no such owner or user shall employ any other person to operate or use the same, than such a competent engineer, having an unexpired license as aforesaid. No person shall use or operate any steam boiler or steam generating apparatus in the city of Los Angeles without obtaining a certificate of license as herein provided for.

SEC. 7. Every applicant for a license who fails to pass the examination of the Board, shall be required to wait for four weeks before making another application, and thereupon the Board shall give him another examination. Any applicant who fails to pass after the third trial shall not be permitted to again appear before said Board for six months. Every engineer licensed by the Board and every engineer whose license is vised by the Board shall notify the Boiler Inspector of any employment which he may enter into as such engineer, and within three days thereafter the name of his employer and the location of the boiler or other apparatus in his charge. Every engineer licensed by the Board or whose license is vised by the Board shall semi-annually report to the Boiler Inspector during the first three days of the months of January and July of each year, the condition of the boiler or other apparatus and their connections under or in his charge. An application for the renewal of a license shall be made not later than the first regular meeting of the Board, next following the expiration of the license, and unless the foregoing provision is complied with the Board may, at its discretion, order a new examination. All licenses granted to applicants as hereinbefore provided and all renewals of the same, shall be good for one year from the time of said granting or renewal, unless sooner revoked. The Board of Engineers shall have the power and it shall be their duty to revoke the license or renewal of a license theretofore granted to any person holding or receiving the same who fails, neglects or refuses to comply with any of the provisions of this ordinance or the duties imposed thereby. It shall be the duty of the Board of Engineers to collect from every applicant for the renewal of an engineer's license the sum of \$1.00 for renewal of same and said fees shall be paid by the Boiler Inspector as Secretary of said Board, to

the City Treasurer of said city. Every engineer or other person required by said ordinance to have a certificate of license from the Board of Engineers, shall keep the same posted in a conspicuous place at or near the engine boiler or steam generating apparatus or other apparatus of which he is in charge.

SEC. 11. Any person who shall violate any of the provisions of this Ordinance shall be deemed guilty of a misdemeanor, and upon conviction thereof, shall be punished by a fine not exceeding One Hundred Dollars, or by imprisonment in the City Jail for a period not exceeding one hundred days, or by both such fine and imprisonment.

SEC. 14. Any person, firm or corporation, failing, neglecting or refusing to comply with any of the provisions of this ordinance or failing to do or perform any of the duties or acts imposed hereby, or herein, shall be deemed guilty of a misdemeanor, and on conviction thereof, shall be fined in a sum of not to exceed two hundred dollars or shall be imprisoned in the City Jail of said city for a term not exceeding six months, or may suffer both fine and imprisonment.

#### MEMPHIS, TENN.

SECTION 1. Be it ordained by the Legislative Council, That a Board of Examiners is hereby created to examine and license engineers having charge of or operating boilers and steam engines in the City of Memphis. Said Board of Examiners shall consist of the Boiler Inspector and four practical steam engineers who are citizens of Memphis, who have had not less than six years' practical experience in operating steam boilers and steam machinery. The members of the Board of Examiners shall be appointed by the Legislative Council, and shall hold office for the term of two years, or until their successors are appointed and qualified, unless sooner removed for cause. The members of the Board of Examiners must be residents of the City of Memphis, and they vacate their office when they move outside of the city limits. In case of a vacancy by removing from the city, or by death, resignation or removal for cause, such vacancy shall be filled as originally, for the unexpired term.

SEC. 2. Be it further enacted, That the duties of the Board of Examiners shall be to practically examine into the qualifications of the applicants for license to act as engineers of steam plants. One of the members shall act as secretary, and shall keep the minutes of

the proceedings of each meeting of the Board and shall handle and have charge of all moneys paid to the Board, and shall give bond in the sum of one thousand (\$1,000) dollars for the faithful performance of his duties. The Legislative Council shall have power to remove any member of the Board for drunkenness, incompetency or gross neglect of duty; Provided, that in no case shall the secretary be released from his bond until his books have been examined, his accounts found correct, and all moneys, books and papers in his possession have been turned over to the Board, or to his successor. The Legislative Council shall furnish suitable quarters for the Board of Examiners.

SEC. 3. Be it further enacted, That the Board of Examiners shall hold at least two sessions each month, on the first and third Mondays thereof, in the City of Memphis, for the purpose of receiving and acting on applications for license, and a majority of the Board shall constitute a quorum to do business. And the Board shall hold such additional sessions as may be necessary to promptly dispose of the applications for license pending before them.

The secretary shall keep a register of the names of all applicants, designate those found qualified and those found not qualified. Said Board shall grant certificates of license for one year from date thereof to applicants who, upon examination, shall have the skill, experience and habits of sobriety requisite to perform the duties of an engineer. Licenses shall be renewed without examination upon payment of the required fee. All certificates of license shall be signed by at least three members of the Board, and the entire Board only shall have the power to revoke the license of any engineer for insobriety or gross neglect of duties when in charge of a steam plant in use; but no license shall be revoked for cause without first giving the accused party an opportunity to be heard in his own defense. And every engineer who shall receive a license shall, when employed about any steam plant, place his certificate of license, which must be framed under glass, in a conspicuous place about the boiler or engine room at which he is employed, where it can be seen at all times, and a failure to comply with this provision by an engineer shall be deemed a misdemeanor, and upon conviction he shall be fined not less than \$5.00 nor more than \$25.00, and for the second offense his license shall be revoked. No engineer shall be fined or have his license revoked without first giving the accused party an opportunity to be heard in his own defense.

SEC. 4. Be it further enacted, That this ordinance shall apply to all engineers having charge of or operating plants requiring a license within the city. Every applicant for license must not be less than 21 years of age, and must be a citizen of the United States, or have declared his intention to become such, and the application must be made on a blank furnished by the Board for such purpose. Said applicant must have at least three years' experience at mechanical or steam engineering, and must state his experience on the blank. All applications must be signed by two citizens of the United States, one of whom must be an engineer or steam user, and both of whom must make affidavit before an officer qualified to administer an oath that the statements set forth in such applications are true. When an applicant has appeared before the Board of Examiners for examination for three meetings and has not passed the examination, he shall be considered to have failed, and shall not be eligible to stand another examination until a period of sixty days has passed from the time of his last appearance before the Board. All applicants for license who, upon examination, shall be found qualified as an engineer shall be granted a license to operate boilers and engines in the City of Memphis.

SEC. 5. Licenses shall be graded as follows: First, second and third grade. First grade license shall entitle its rightful holder to operate or have charge of steam plants of unlimited capacity as to horsepower of boilers. Second grade license shall entitle its rightful holder to assist a first grade license engineer in any steam plant where such services are required, under the instructions of first grade engineer in charge of steam plant, or may have charge of and operate steam plants limited to 75-horse power of boilers. Third grade license shall entitle its rightful holder to assist first or second grade engineers where such services are required, under instructions of engineer in charge of steam plant, or he may have charge of or operate steam plants limited to 25 horse power of boiler. For the purpose of this ordinance boilers shall be computed on a basis of 15 square feet of heating surface per horse power.

SEC. 6. The fee for each license or yearly renewal shall be two (\$2.00) dollars, to be used to defray the expenses of the Board. The receipt for said fee shall be indorsed upon the certificate of license, but no certificate shall be valid until such fee has been paid. Any surplus of funds accumulating after the expenses of the Board have been paid shall, at the expiration of every twelve months,

be turned into the general fund of the city. The Board shall make such rules and regulations for its government as its members may deem proper, not inconsistent with this ordinance. Each member of the Board shall receive the sum of one (\$1.00) dollar, except the secretary, who shall receive the sum of two (\$2.00) dollars, for attendance at each meeting of the Board, and then only when such meeting is for the purpose of examing applicants for license. The above to be paid out of the expense funds of the Board: Provided, that when a member is absent from any meeting he shall forfeit his pay for such meeting.

SEC. 7. Be it further enacted, That the provisions of this ordinance shall apply to all steam plants or boilers operated within the city limits, except locomotive boilers used on railroads. Every owner or user of any boiler or boilers or steam generating apparatus shall, when said boilers or apparatus are in use, employ at least one licensed engineer, of the grade required, to operate said boilers or apparatus, as provided in section 5 of this ordinance: Provided, however, if any owner or user of any boiler or boilers or steam generating apparatus is deprived of the services of the licensed engineer or engineers employed by him, by death, resignation, or any other cause over which he has no control, such owner or user shall have not more than thirty days within which to secure the services of a licensed engineer, and during such period he may run his plant with an unlicensed engineer, and provided further, that every owner or user of any boiler, boilers or steam generating apparatus shall have not more than thirty days after the organization of said Board of Examiners within which to secure the services of a licensed engineer, and during such period he may likewise run his plant with an unlicensed engineer. Any violation of this section shall be deemed a misdemeanor, punishable by a fine of not less than twenty-five (\$25.00) dollars nor more than fifty (\$50.00) dollars. Any person found in charge of or running without a license any steam plant, in violation of the terms of this section, shall be deemed guilty of a misdemeanor, and on conviction thereof shall be fined not less than twenty-five (\$25.00) dollars nor more than fifty (\$50.00) dollars.

SEC. 8. No person shall receive license who is not able to determine the weight necessary to be placed on the lever of a safety valve (the diameter of valve, length of lever, distance from center of valve to fulcrum, weight of lever and weight of valve and stem

being known) to withstand any given pressure of steam in boiler. And must be able to figure and determine the strain brought on the braces of a boiler with a given pressure of steam, the position and distance apart being known. And must be able to figure and determine the safe working pressure of a boiler, such knowledge to be determined by an examination in writing. And no license shall be granted to any engineer who does not possess the above qualifications, except third grade. No license shall be granted to any engineer who cannot read and write and does not understand the plain rules of arithmetic.

SEC. 9. The examination questions asked an applicant for license shall be such practical questions as are met with in actual engine and boiler-room experience, and a correct answer of 80 per cent. of such questions shall qualify the applicant to receive his license.

SEC. 10. Be it further enacted, That it shall be the duty of the chief of police to see that this ordinance is strictly enforced, and it shall be the duty of any citizen who may have knowledge of the violation of this act to report the same to the proper officer.

#### MOBILE, ALA.

SECTION 1. Be it ordained by the mayor and general council of the city of Mobile that there is hereby created a board to be known as the Board of Examiners of Engineers. Said board shall consist of three practical engineers having not less than five years' experience in the management of stationary engines and boilers, and who shall at the time of their election and during their incumbency in office be actively engaged in the calling or profession of a stationary engineer. Members of said board shall in the first instance be elected by the general council as soon as practicable after the passage of this ordinance, and their terms of office shall expire with the expiration of the terms of office of the general council. Thereafter each succeeding general council shall, as soon as practicable after its election and qualification, elect three members of said board. Said board shall meet at least twice each month, and as much oftener as may be found necessary for the proper dispatch of business. The members of said board shall serve without compensation.

SEC. 2. Be it further ordained that no person shall be entrusted with or have or exercise charge or management of any steam boiler having more than two hundred square feet of heating surface or carrying a pressure greater than twenty pounds per square inch



until said person has been duly examined by said board touching his qualifications for the management and handling of steam boilers, feed pumps and injectors. But this provision shall not prevent any person now in charge of a boiler from continuing in charge thereof pending said examination, provided said person makes prompt application to said board for examination and stands said examination at the time appointed by said board on his application for examination, or at such time as he may be called before said board for examination. Whenever any person makes application therefor to said board or is called before said board for examination he shall be carefully and thoroughly examined touching his competence to manage and handle steam boilers, feed pumps and injectors. If said board shall find said applicant competent therefor it shall thereupon issue to him a license certificate in form substantially as hereinafter shown. Said license certificate shall be a license to the holder thereof to manage and handle steam boilers, feed pumps and injectors for one year from its date, and a new license may be issued to said holder at the expiration of each year thereafter without further examination so long as he shall continue in said business without abandoning said business for a greater period than one year at a time. Should he abandon said business for a greater period than one year said license certificate shall become null and void, and it shall be necessary for said person to be re-examined by said board and obtain a new license certificate before undertaking to manage and handle steam boilers, feed pumps and injectors.

SEC. 3. Be it further ordained that said board shall have authority to revoke the license certificate of any engineer theretofore licensed by said board for neglect of duty endangering life or property; or for habitual drunkenness; or for being addicted to use of cocaine or other narcotic drugs; or for being under the influence of liquor or cocaine or other narcotic drugs while on duty; or for failing to report to said board the condition of the boiler or boilers under his charge during the months of January and June of each year; or for failing when a boiler under his charge has become dangerous to report said fact to said board; or for deceiving or misleading the boiler inspector for the purpose of concealing defects in a boiler under his charge; or for violating any law of the state of Alabama or ordinance of the city of Mobile in reference to the management and control of steam boilers. Immediately upon the election of

said board said board shall elect an inspector of boilers and elevators whose election shall be confirmed by the general council and whose term of office shall expire at the same time as the terms of office of the then members of said board, and so on. Said inspector shall be a thoroughly competent stationary engineer, not less than twenty-five years of age, and having not less than five years' active experience in the management and control of steam boilers, feed pumps and injectors, and shall be a man not addicted to drunkenness or the use of cocaine or other narcotic drugs. Said inspector may be removed from office by said board or by the general council for incompetence or dereliction of duty at any time, and a successor elected to serve out his unexpired term.

SEC. 6. Be it further ordained that each plant coming within the purview of this ordinance shall employ at least one competent engineer who shall have a license certificate from said board.

SEC. 8. Be it further ordained that each engineer entrusted with or having charge or management of a boiler coming within the purview of this ordinance, and each person entrusted with or having charge or management of an elevator coming within the purview of this ordinance, shall prepare and mail to the said inspector during the first week in January and the first week in July of each year a written report as to the condition of the boilers or elevators under his charge. And all engineers on being entrusted with or taking charge or management of such boilers, and all persons on being entrusted with or taking charge or management of such elevators shall within ten days thereafter report to said inspector the condition of said boilers or elevators, even though the same were reported on during the preceding January or July. All reports required by this section shall give full detailed and accurate information, and shall be made on blank forms to be prepared by said board and to be had by application to said inspector.

SEC. 12. Be it further ordained, that for each original license certificate issued by said board the party licensed thereby shall, before receiving said license certificate, pay said board the sum of two dollars; and for each renewal of a license the party to whom said renewal certificate is issued shall, before receiving said renewal certificate, pay said board the sum of one dollar. The fees thus collected by said board shall be by said board paid over to the city clerk within ten days after the same are collected by said board.

SEC. 16. Be it further ordained, that the license certificates and

certificates of inspection hereinbefore provided for shall be issued from well bound stub books in which the stub is a substantial duplicate of the certificate issued; and in each instance the stub shall be carefully filled up in exact accordance with the contents of the certificate before the certificate is torn out.

SEC. 17. Be it further ordained, that all reasonable expenses incurred by said board or by said inspector in the discharge of their duties shall be reported to the mayor and general council and appropriations made therefor as in the case of other expenses of the city government.

SEC. 18. Be it further ordained that each engineer to whom a license certificate is issued as hereinbefore provided shall have the same carefully framed and keep it in a conspicuous place in the engine room or boiler room under his charge. The owner of a boiler or boilers to whom a certificate of inspection is issued as hereinbefore provided shall have the same carefully framed and keep it in a conspicuous place in the boiler room in which the boiler or boilers to which said certificates applies are located. The owner of an elevator to whom a certificate of inspection is issued as hereinbefore provided shall have the same carefully framed and keep it in a conspicuous place in the car of the elevator to which said certificate applies.

SEC. 19. Be it further ordained, that any person, firm or corporation violating any of the provisions of this ordinance shall be fined for each violation a sum not exceeding fifty dollars. Where the violation is of a continuing kind each day during which the violation continues shall be considered a separate offense, and a separate fine may be imposed for each such day.

#### NEW HAVEN, CONN.

SECTION 1. No person shall be the engineer of, or shall have charge of or operate any steam boiler or steam engine, in the City of New Haven, for a period exceeding one week, who shall not have a license certificate authorizing him to have charge of, or operate, such engine or boiler, from the Board of Examiners hereinafter constituted.

SEC. 2. The Mayor shall, within sixty days after passage of this ordinance, appoint a Board of Examiners, which shall consist of three members, one of whom, at least, shall be an engineer who has had ten years experience in the operation of steam boilers, or steam

engines, who shall hold office for a period of two years, or until their successors are appointed, and shall grant the license hereinafter provided for, and serve without pay.

SEC. 3. Before any person shall be employed as an engineer of any such steam boiler or engine, or shall have charge of or operate any such boiler or engine, he shall make a written application to said Board of Examiners for the license hereinbefore mentioned, and shall specify in such application the particular engine, boiler, or plant which he desires to operate or have charge of, which application shall be accompanied by references as to his character and ability, and the filing of such reference with such said Board shall be considered as a compliance with the provisions of this ordinance, for thirty days thereafter, or until his said application shall have been passed upon by said Board, and said applicant, after the filing of said references, shall have the right to operate and have charge of any such engine, boiler, or plant, until his application shall have been passed upon by said Board.

SEC. 4. Every person who shall satisfy said Board of Examiners that he is a safe and competent person to operate and have charge of the steam plant, boiler or engine specified in his application, shall on payment of One (\$1.00) Dollar, receive a license permitting him to operate the same for one year, unless sooner revoked. Said license shall apply only to the plant, boiler or engine for which it is issued; and before taking charge of another plant, the licensee shall apply for another license for such other plant, for which other license, if the application be made within a year, no charge shall be made. For annual renewals of such licenses, a fee of One (\$1.00) Dollar shall be paid. For the renewals above mentioned, no additional hearing shall be required, unless in the judgment of said Board it shall be necessary. Said licenses must be framed and hung in a conspicuous place in the plant, or upon or near the engine for which it is issued.

SEC. 5. Said Board may at any time revoke any license issued, on account of inebriety, incompetency, or negligence of the holder of any license, or for any other good cause, and no license shall be issued to any licensee whose license shall have been revoked, during the next six months ensuing, after which time the license revoked may be renewed, if, in the judgment of the Board the cause of its revocation no longer exists.

SEC. 6. If said Board shall refuse to grant to any applicant a li-

cense, no license shall be issued to him for the next six months following the refusal of his application, but after said period said applicant may make another application, and if found qualified, may be granted a license.

SEC. 7. Whenever said Board shall refuse to grant any application, or shall revoke any license they shall give immediate notice of such refusal, or revocation, to the applicant or licensee, and such applicant or licensee may appeal from the decision of such Board to the Mayor, in which case said applicant or licensee shall file his appeal with the Mayor within ten days after receiving notice of the decision of said Board, and the Mayor may confirm or reverse the decision of said Board, and issue such license.

SEC. 8. Any person found guilty of any violation of the provisions of this ordinance, except Section 10 thereof, shall be fined not more than Twenty-five (\$25.00) Dollars, nor less than Ten (\$10.00) Dollars.

SEC. 9. This ordinance shall not apply to Railway locomotives, nor engineers employed thereon, nor to steam vessels coming under the jurisdiction of the United States Board of Supervising Inspectors, when employed upon the vessels to which said license applies. Nor shall it apply to boilers in private residences or buildings for heating purposes, unless in the opinion of said Board, such boiler is so equipped and run as to endanger public safety unless operated by a licensed engineer.

SEC. 10. Any engineer in charge of any steam engine, who shall abandon it while in operation, without leaving a person in charge of the same, who shall, in the opinion of the employer of said engineer, or of the owner of such engine, be competent to take charge of the same, shall be fined not more than Ten (\$10.00) Dollars.

#### NEW YORK CITY, N. Y.

SEC. 312. The board of police shall preserve in proper form a correct record of all inspections of steam boilers made under its direction, and of the amount of steam or pressure allowed in each case, and in cases where any steam boiler or the apparatus or appliances connected therewith shall be deemed by the board, after inspection, to be insecure or dangerous, the board shall prescribe such changes and alterations as may render such boilers, apparatus and appliances secure and devoid of danger. And in the meantime, and until such changes and alterations are made, and such

appliances attached, such boiler, apparatus, and appliances may be taken under the control of the board of police, and all persons prevented from using the same, and in cases deemed necessary the appliances, apparatus, or attachments for the limitation of pressure may be taken under the control of the said board of police. And no owner, or agent of such owner, or lessee of any steam boiler to generate steam, shall employ any person as engineer or to operate such boiler unless such person shall first obtain a certificate as to qualification therefor from a board of practical engineers detailed as such by the police department, such certificate to be countersigned by the officer in command of the sanitary company of the police department of the City of New York. In order to be qualified to be examined for and to receive such certificate of qualification as an engineer, a person must comply, to the satisfaction of said board, with the following requirements:

1. He must be a citizen of the United States and over twenty-one years of age.

2. He must, on his first application for examination, fill out in his own hand writing, a blank application to be prepared and supplied by the said board of examiners, and which shall contain the name, age and place of residence of the applicant, the place or places where employed and the nature of his employment for five years prior to the date of his application, and a statement that he is a citizen of the United States. The application shall be verified by him, and shall, after the verification, contain a certificate signed by three engineers, employed in New York City, and registered on the books of said board of examiners as engineers working at their trade, certifying that the statements contained in such application are true. Such application shall be filed with said board.

3. The following persons, who have first complied with the provisions of sub-divisions one and two of this section, and no other persons, may make application to be examined for a license to act as engineer.

- a. Any person who has been employed as a fireman, as an oiler, or as a general assistant under the instructions of a licensed engineer in any building or buildings in the City of New York, for a period of not less than five years.

- (b. Any person who has served as a fireman, oiler or general assistant to the engineer on any steamship, steamboat, or any locomotive engineer for a period of five years and shall have been em-

ployed for two years under a licensed engineer in a building in the City of New York.)

b. *Any person who has served as fireman, oiler or general assistant to the Engineer on any steamship or steamboat for a period of five years, and shall have been employed for two years under a licensed engineer in a building in New York City, or any person who has served as a marine or locomotive engineer or fireman to a locomotive engineer for a period of five years and shall have been a resident of the State of New York for a period of two years.*

c. Any person who has learned the trade of machinist, or boiler maker or steam fitter and worked at such trade for three years exclusive of time served as apprentice, or while learning such trade, and also any person who has graduated as a mechanical engineer from a duly established school of technology, after such person has had two years experience in the engineering department in any building or buildings in charge of a licensed engineer, in the City of New York.

d. Any person who holds a certificate as engineer issued to him by any duly qualified board of examining engineers existing pursuant to law in any state or territory of the United States and who shall file with his application a copy of such certificate and an affidavit that he is the identical person to whom said certificate was issued. If the board of examiners of engineers shall determine that the applicant has complied with the requirements of this section he shall be examined as to his qualifications to take charge and operate steam boilers and steam engines in the City of New York, and if found qualified said board shall issue to him a certificate of third class. After the applicant has worked for a period of two years under his certificate of the third class, he may be again examined by said board for a certificate of the second class, and if found worthy the said board may issue to him such certificate of the second class, and after he has worked for a period of one year under said certificate of the second class, he may be examined for a certificate of the first class, and when it shall be made to appear to the satisfaction of said board of examiners that the applicant for either of said grades lacks mechanical skill, is a person of bad habits, or is addicted to the use of intoxicating beverages, he shall not be entitled to receive such grade of license and shall not be re-examined for the same until after the expiration of one year. Every owner or lessee, or the agent of the owner or lessee, of any steam boiler, steam generator, or steam engine aforesaid, and every person acting for such owner or agent is hereby forbidden to delegate or transfer to any person or persons

other than the licensed engineer the responsibility and liability of keeping and maintaining in good order and condition any such steam boiler, steam generator or steam engine, nor shall any such owner, lessee or agent enter into a contract for the operation or management of a steam boiler, steam generator, or steam engine, whereby said owner, lessee or agent, shall be relieved of the responsibility or liability for injury which may be caused to person or property by such steam boiler, steam generator or steam engine. Every engineer holding a certificate of qualification from said board of examiners shall be responsible to the owner, lessee or agent employing him for the good care, repair, good order and management of the steam boiler, steam generator or steam engine in charge of or run or operated by such engineer.

### AN ACT TO LICENSE FIREMEN.

SEC. 1. It shall be unlawful for any fireman or firemen to operate steam stationary boilers in the City of New York, unless the fireman or firemen operating such boiler or boilers are duly licensed as hereinafter provided. Such fireman or firemen to be under the supervision and direction of a duly licensed engineer or engineers.

SEC. 2. Should any boiler or boilers be found at any time operated by any person who is not a duly licensed fireman or engineer as provided by this act, the owner or lessee thereof shall be notified, and if after one week from such notification the same boiler or boilers is again found to be operated by a person or persons not duly licensed under this act, it shall be deemed prima facie evidence of a violation of this act.

SEC. 3. Any person desiring to act as a fireman shall make application for a license to so act, to the steam boiler bureau of the police department as now exists for licensing engineers, who shall furnish to each applicant blank forms of application, which application when filled out shall be signed by a licensed engineer engaged in working as an engineer in the City of New York, who shall therein certify that the applicant is of good character, and has been employed as oiler, coal passer or general assistant under the instructions of a licensed engineer on a building or buildings in the City of New York, or on any steamboat, steamship or locomotive for a period of not less than two years. The applicant shall be given a practical examination by the board of examiners detailed as such by the police commission and if found competent as to his ability to operate a



steam boiler or steam boilers as specified in Section I of this Act, shall receive within six days after such examination a license as provided by this Act. Such license may be revoked or suspended at any time by the police commissioner upon the proof of deficiency. Every license issued under this Act shall continue in force for one year from the date of issue unless sooner revoked as above provided. Every license issued under this act unless revoked as herein provided, shall at the end of one year from date of issue thereof, be renewed by the board of examiners upon application and without further examination. Every application for renewal of license must be made within thirty days of the expiration of such license.

With every license granted under this Act there shall be issued to every person obtaining such license a certificate, certified by the officers in charge of the boiler inspection bureau. Such certificate shall be placed in the boiler room of the plant operated by the holder of such license, so as to be easily read.

SEC. 4. No person shall be eligible to procure a license under this Act unless the said person be a citizen of the United States.

SEC. 5. All persons operating boilers in use upon locomotives or in government buildings, and those used for heating purposes carrying a pressure not exceeding ten pounds to the square inch, shall be exempt from the provisions of this Act. Such license will not permit any person, other than a duly licensed engineer to take charge of any boiler or boilers in the City of New York.

### NIAGARA FALLS.

1. The Board of Examiners of Stationary Engineers shall have cognizance, direction and control of the inspection of steam engines and boilers used in said City, and of the examination and licensing of stationary engineers and persons who may act as firemen in charge of any boiler within said City, but such firemen will not be required to pass an examination, except as to the ordinary duties of a fireman. It shall be the duty of said Board to enforce the ordinance of said City, relating to the use and operation of steam engines, steam boilers and steam plants within the City, and the duties and qualifications of stationary engineers and firemen and to perform such other duties as may be required of said Board from time to time, by the Common Council.

2. The Board of Examiners of Stationary Engineers are hereby authorized to procure suitable blanks and stationery for the conduct of the affairs of said Board. The City Treasurer shall keep all mon-

eyes paid to him on account of licenses issued by said Board in a separate fund, which shall be known as "The Stationary Engineers' Fund," and all disbursements for the supplies for the use of said Board of Examiners authorized by law or by ordinance shall be paid out of said fund. After the payment of all such lawful disbursements on account of said Board of Examiners, the balance of money remaining in said Stationary Engineers' Fund on the first day of February in each year shall be paid to the members of said Board of Examiners of Stationary Engineers, fifty per cent. thereof to the Chairman of said Board, and twenty-five per cent, thereof to each of the other members of said Board, on or before the end of each municipal year, as salary and as and for compensation for their services as members of said Board of Examiners of Stationary Engineers.

3. Any person desiring a license to act as Stationary Engineer or Fireman within the City of Niagara Falls may file with the City Clerk on application together with the required fee for a license, provided one be granted, which fee is to be returned to said applicant in case he is not granted a license, which application is to be forthwith submitted by the City Clerk to said Board of Examiners of Stationary Engineers, or one of them, whereupon said Board shall at a time and place to be named by them, examine such person who shall appear before them for examination as to his qualifications. If upon such examination said Board shall determine that the applicant is in all respects a proper and suitable person and possesses the requisite qualifications to receive such license, they shall cause a license to be granted to the applicant in the manner herein provided.

4. It shall be unlawful for any person to have charge of or operate any steam plant, steam engine or steam boiler within this City, excepting locomotive steam engines or marine engines or engines used by the fire department of the City of Niagara Falls, and other cases by this ordinance specifically excepted, without having procured a license from said Board of Examiners of Stationary Engineers, in the manner provided by this ordinance, and it shall be unlawful for any person licensed under the provisions of this ordinance to have charge of or operate any steam engine, steam boiler or steam plant of a higher grade or quality than that which he is licensed to have charge of or operate.

5. The Board of Examiners of Stationary Engineers shall issue licenses of the following classes:

(a) A license as Chief Engineer to any person found by them duly qualified to take charge of and operate a steam plant of any kind.

(b) A license as first class engineer to any person found upon proper examination to be qualified to take charge of a steam plant or engine not exceeding 300 horse power.

(c) A license as first class fireman to any person found upon proper examination to be qualified to take charge of a steam boiler not to exceed 300 horse power.

(d) A license as second class engineer to any person found qualified upon such examination to take charge of and operate any steam plant or engine not exceeding 75 horse power.

(e) A license as second class fireman to any person found qualified upon such examination to take charge of and operate any steam boiler not exceeding 75 horse power.

(f) A license as special engineer or fireman to any person found qualified upon proper examination to take charge of and operate a certain steam engine or steam boiler of a certain horse power capacity, to be designated in the license.

(g) License to owner of steam engine or boiler using not to exceed ten horse power and used by him in his own business.

6. No license granted by said Board of Examiners of Stationary Engineers shall be for a term exceeding one year and the following license fees shall be demanded and received by the City Treasurer, viz.:

Upon issuing any license save license provided for in subdivision (g) of Section 5 above three (\$3.00) dollars.

For license issued under subdivision (g) of Section 5 above, one (\$1.00) dollar.

The Board of Examiners after the examination of any applicant for a license as above stated shall in case they find the applicant qualified sign a proper certificate and license, and leave the same with the City Treasurer who shall deliver such certificate and license to the applicant upon the payment of the above named fees. Said Board of Examiners of Stationary Engineers shall annually issue in like manner a certificate or license to any stationary engineer who has heretofore been examined and received a license which shall be delivered by the City Treasurer to such stationary engineer upon the payment of a fee of two (\$2.00) dollars.

7. It shall be unlawful for any person or corporation to employ or permit any person to have charge of or operate any steam engine

or steam boiler or steam plant within this City unless such person shall be duly licensed to have charge of such steam engine or steam boiler or steam plant as herein provided.

8. It shall be unlawful for any intoxicated person to have charge of or operate any steam engine or steam boiler, and the Board of Examiners of Stationary Engineers is hereby empowered, and it shall be its duty to cancel or revoke the license of any person, who shall violate this provision, It shall also be the duty of said Board of Examiners to cancel and revoke the license of any person whom they shall, upon proper evidence, find to be incompetent or negligent in the performance of its duties. It shall be the duty of the Board of Examiners to give notice to any employer of such engineer whose license shall be revoked.

9. It shall be unlawful for any person to operate or take charge of a steam engine, steam boiler or steam plant of greater capacity and horse power than authorized by his license, and it shall also be unlawful for any person to have charge of or operate more than one steam plant at the same time.

10. It shall be unlawful for any stationary engineer or fireman to be absent from the steam boiler or steam engine operated by him for a space of time exceeding twenty (20) minutes, nor to be farther distant from such steam boiler or steam engine than one hundred (100) feet while working under pressure. Each such licensed engineer and fireman shall have license suitably framed and hung in a conspicuous place at or near the engine or boiler in his charge.

11. It shall be unlawful for any person licensed to take charge of or operate a steam boiler, to take charge of or operate a steam plant or steam engine without having a license therefor. And no licensed engineer shall permit any person not having a license therefor to take charge of or operate any steam plant, steam engine or steam boiler of which said licensed engineer may be in charge and operating. The Board of Examiners shall have the power to revoke the license of any engineer who shall violate any of the provisions of this section.

12. It shall not be necessary to procure a license to take charge of or operate a steam boiler used in private dwellings, in cases where the water returns automatically to the boiler and pressure does not exceed ten (10) pounds.

13. The Board of Examiners of Stationary Engineers shall have the power and it shall be their duty to inspect all steam boilers in

the City, except those which are regularly inspected and insured by a responsible company organized for the purpose of making guaranteed steam boiler inspections. For all boilers not inspected by such companies the said Board, or any member thereof, is hereby authorized to enter in or upon any premises or building, in or upon which any steam boiler may be operated and examine and inspect such steam plant, engine or boiler and the operation thereof, and to prohibit and restrain the use or operation of any steam boiler found by them to be unsafe for use. Any person, firm or corporation using or operating any steam boiler or steam plant except such as are inspected and insured as heretofore provided, shall afford free and peaceable access thereto to any member of said Board, or to any authorized representative of said Board for the purpose of inspecting or examining the same, or for ascertaining whether or not the ordinances of the City relating to the operation of steam plants are being complied with. No person, firm or corporation shall operate any steam plant under the jurisdiction of said Board after notice duly served by said Board that the same is unsafe.

14. The Mayor of the City shall appoint a competent person to act as boiler inspector under the supervision, control and direction of the Board of Examiners of Stationary Engineers. Such person shall have at least six (6) years' practical experience as a stationary engineer. It shall be the duty of such inspector, once in a year or oftener, if required by the Board of Examiners of Stationary Engineers, to inspect and examine each and every uninsured steam boiler used or operated within the City of Niagara Falls which is required by these ordinances to be in charge of or operated by a licensed engineer or fireman, and to report the result of such examination to the Board of Examiners of Stationary Engineers.

All boiler insurance companies doing business in this City shall furnish the Board of Examiners of Stationary Engineers with a copy of each boiler inspection, signed by the insurance inspector.

The City Boiler Inspector shall be entitled to charge and receive to and from the owner of each boiler internally inspected by him a fee of \$2.50 for each inspection so made by him, which he may retain as and for his full compensation for services as such inspector.

The City Inspector shall not charge or receive from the owner of any boiler more than one fee for each boiler, in any one year, unless an additional examination shall have been requested by the owner of the boiler.

The City Inspector shall give the person, firm or corporation one week's notice of any inspection he may find necessary to make where the boiler has to be cooled down for internal examination.

15. Every owner of a steam boiler or boilers operated within the City of Niagara Falls and required by these ordinances to be operated by a licensed engineer or fireman, shall on or before the first day of May, 1906, and annually thereafter, register the same, giving the name of the manufacturer, the date of manufacture and the numbers and location of all boilers, and the rated capacity of each, with the Board of Examiners of Stationary Engineers, and shall procure a certificate of such registration from said Board, which shall be posted in a conspicuous place on building where such boiler or boilers are located. No person, firm or corporation shall use or operate, or cause to be used or operated any such steam boiler or boilers until the same shall be duly registered and a certificate thereof procured and posted as above provided.

16. Any person, firm or corporation violating any of the provisions of this chapter of ordinances shall forfeit and pay to the City a penalty in the sum of Twenty-five (\$25.00) Dollars. Each day that any person, firm or corporation shall continue to violate any of the provisions of said ordinances shall constitute a separate and distinct violation of such provision.

17. All ordinances relating to Stationary Engineers and Firemen inconsistent with this chapter of ordinances are hereby repealed.

18. This chapter of ordinances shall take effect immediately.

Article II. Section 15 of charter.—Three members of the board of examiners of stationary engineers for the term of three years each, one to be appointed each year. They shall receive such fee as the common council shall fix by ordinance.

Article III. Section 108 of city charter.—There shall be a board of examiners of stationary engineers, two of whom shall be stationary engineers of at least three years' experience, and one of whom shall be a mechanical engineer having received the degree of mechanical engineer from a school or college requiring a residence course of not less than three years instruction before conferring such degree. Two members of said board shall constitute a quorum and the concurring vote of two members shall control its acts.

The said board subject to the provisions of this act shall have cognizance, direction and control of the inspection of steam engines and boilers used in said city, and of the examination and licensing

of stationary engineers, and shall perform such other duties as may be prescribed by the ordinance of said city.

It shall be the duty of said board to cause to be enforced the ordinance of the common council prescribing qualifications for any person who may act as a fireman in charge of any boiler within said city, but such fireman shall not be required to pass an examination except as to the ordinary duties of a fireman.

### OMAHA, NEB.

SECTION 1. The mayor shall appoint, by and with the consent of the city council, a boiler inspector, who shall hold his office for two (2) years, or until his successor is appointed and qualified.

SEC. 2. The boiler inspector shall be a mechanical engineer, well qualified from practical experience in the use and construction of boilers, generators, super-heaters and their appurtenances used for generating steam for power, steaming or heating purposes, to enable him to judge of their safety for use as such, and who is neither directly or indirectly interested in the manufacturing, ownership or agency of steam boilers which are to be inspected.

SEC. 3. The boiler inspector, before entering upon the duties of his office, shall execute a bond to the City of Omaha in the sum of five thousand (5,000) dollars, with two or more sureties, to be approved by the mayor, conditioned for the faithful performance of the duties of his office.

SEC. 4. The mayor shall also designate and appoint by and with the consent of the city council, two persons who shall be qualified and have had at least five years' experience as practical and mechanical engineers, and do hold, or are qualified to hold, a first-class certificate as engineers, who, in conjunction with the boiler inspector, shall constitute a board of engineers.

SEC. 5. The boiler inspector shall devote his time and attention to the duties of his office, and also perform the duties of secretary of the board of engineers. He shall carefully inspect and test every stationary boiler and steam generating apparatus, under pressure, used for stationary power, as provided by this chapter, including attachments and connections located within the City of Omaha, at least once annually. He shall keep a complete and accurate record of the names of all owners or users of steam boilers, giving a full description of the boilers inspected by him and amount of pressure allowed the date when last tested. He shall notify all owners or users.

of boilers of the time when a re-inspection and the test will be made and appoint a day on which he shall make a re-inspection.

SEC. 7. The boiler inspector and board of engineers shall be provided with all needed blanks and stationery needful for their official duties. Said board shall provide for regular sessions and the boiler inspector shall act as secretary and keep minutes of the proceedings. Said board shall convene for business once in each month to examine into qualifications of applicants for engineers' certificates. And the boiler inspector shall have power to call a special session of the board if deemed necessary. A majority of the members of said board shall constitute a quorum for the transaction of business.

SEC. 8. Every applicant for a certificate who fails to pass the examination of the board is required to wait three (3) months before again making application for a certificate, and at the expiration of such period the board will give him another examination.

Every applicant for a certificate must make application for the same on a blank furnished by the board of engineers for that purpose. Applicants must have at least two years' experience at mechanical or steam engineering, and must write and state their experience in the blank. All applications must be signed by two citizens, one of whom must be a steam user or engineer. Said applicant shall be required to go before the board and make oath that the statements set forth in such blanks are true.

Every engineer holding a certificate granted by the board is required to notify the board when he accepts or leaves his employment, and state the name of his employer and the location of the boiler in his charge immediately, and any engineer who fails to give such notice may have his certificate revoked by the board.

Any steam user or engineer failing to place or put in a conspicuous place in the engine room or boiler house the certificate of the boiler inspector or the certificate of the board of engineers, shall be deemed guilty of a misdemeanor, and on conviction thereof shall be fined not less than one dollar nor more than one hundred dollars.

Any engineer holding a certificate granted by the board shall, within the first ten days of January and July of each year, make a written report to the boiler inspector of the condition of all boilers and apparatus in his charge.

Every certified engineer shall devote at least eight hours out of every twenty-four hours to the duties of the plant where he is employed as engineer and if he neglects or fails to comply with this sec-



tion, or if intoxicated while in the discharge of his duty, he shall be deemed guilty of a misdemeanor, and on conviction thereof shall, besides the fines otherwise provided for, forfeit his certificate.

Any person who violates or fails to comply with the provisions of this chapter shall be deemed guilty of a misdemeanor, and upon conviction thereof, when no other fine or punishment is fixed in this chapter, may be fined in a sum not less than five dollars nor more than fifty dollars for each offense.

The board shall issue three grades of certificates, as follows:

(1). First grade certificates shall entitle the holder to take charge of and run any steam plant.

(2). Second grade certificate shall entitle the holder to take charge of and run any steam plant under 100 H. P.

(3). Third grade certificate shall entitle the holder to take charge of and run any steam plant under 50 H. P., and the board of engineers may grant to persons operating low pressure gravity steam heating plants carrying not to exceed twenty (20) pounds pressure to the square inch, a special third grade certificate to be valid for one particular specified plant and no other.

A fee of five dollars (\$5) shall be charged for each examination of an engineer for license by said board, provided, that no license shall be granted to any person under twenty-one years of age.

Said certificate shall be valid for one year, and no longer, but shall be renewed each year upon the payment of one dollar (\$1) to the city treasurer and presenting his receipt for the same to the boiler inspector.

It shall be unlawful for any person to employ any person to serve as engineer who is not licensed by the board of engineers, and anyone violating this section shall be deemed guilty of a misdemeanor and upon conviction thereof shall be fined not less than five dollars nor more than one hundred dollars; provided, however, that the boiler inspector, upon satisfactory examination, may issue a permit to any applicant for engineer's license, said permit to hold good only until the first meeting of the board of engineers, after its issue, when said applicant shall be examined by the board for an engineer's license. The board of engineers shall have power to establish rules (not inconsistent with the provisions of this chapter) to govern examinations of applicants for engineer's license (as amended by section 1 of ordinance No. 4303).

SEC. 9. Any owner or user of a steam boiler, feeling aggrieved

on account of any decision of the boiler inspector, may appeal to the board of engineers, and upon a thorough and careful investigation of the matter at issue between the parties, a majority of the board shall decide the question, which shall be fixed in all cases. But the boiler inspector shall not have a voice in any matter in which there is an appeal from his decision.

SEC. 10. In case the user or owner of any boiler shall for any cause be deprived of the service of a certified engineer, he must notify the boiler inspector at once; said inspector may procure an experienced and careful person for a time not exceeding six (6) days at the expense of parties requesting such service. Where boilers are used and engines run night and day, the owner or users of steam power must employ two certified engineers, who may stand watch alternately.

SEC. 13. No person shall use or operate or cause to be used or operated any steam boiler used in furnishing motive power or furnishing steam for any purpose, other than heating a private dwelling house, unless there be in charge of such steam boiler an experienced person having a certificate from the board of engineers; and the board shall not issue any such certificate until after an examination, and are satisfied that the applicant is sufficiently experienced and a proper person to have charge of and operate such boiler, and all persons in charge of such steam boilers shall comply with and be subject to the provisions and penalties of this chapter. (As amended by Section 2 of Ordinance No. 4117.)

SEC. 14. If owners or users of steam boilers or engineers in charge of the same, shall carry a greater pressure than is allowed in the certificate of inspection granted by the boiler inspector, they or either of them shall be deemed guilty of a misdemeanor, and on conviction thereof, shall be fined not less than fifty (\$50) dollars nor more than three hundred (\$300) dollars; and in case of an engineer, his certificate shall be revoked. Or, if such owners or users shall use any boiler which has been condemned as unsafe by the boiler inspector, they shall be deemed guilty of a misdemeanor, and upon conviction thereof, shall be fined in a sum not less than one hundred (\$100) dollars nor more than five hundred (\$500) dollars.

SEC. 17. When a steam boiler is condemned for repairs, it shall be a misdemeanor and punishable by a fine of not less than one hundred (\$100) dollars nor more than one thousand (\$1,000) dollars for any owner or operator to use such boiler so condemned until

after the required repairs shall have been made and approved by the boiler inspector.

SEC. 18. The boiler inspector shall authorize, by and with the consent of the mayor, upon the written application of the president or manager of any steam boiler inspection and insurance company duly authorized by the insurance laws of the state of Nebraska to transact business as an inspection and insurance company of the City of Omaha, Nebraska, one assistant boiler inspector for each and every such company making an application therefor who shall appear before the board of engineers and be examined as to his qualifications, and, if qualified, said board shall grant him a certificate as inspector of such company for a term expiring with the term of such boiler inspector; and said assistant shall obtain from the boiler inspector a permit to make said inspection, upon payment to the city treasurer by the insurance company represented the sum of one dollar, provided, however, that said permit shall cover all inspections made in the year said permit was issued upon the boiler for which said permit was issued, and said assistant boiler inspector shall inspect and test the boilers insured by the company employing him and no other. The said assistant boiler inspector shall serve without compensation from the City of Omaha, and shall give bond to the City of Omaha in the penal sum of three thousand (\$3,000) dollars, with the same conditions as required of the boiler inspector, subject to the approval of the mayor and council. (As amended by Section 3 of Ordinance No. 4117.)

SEC. 19. The members of the board of engineers, except the boiler inspector, shall each receive four (\$4) dollars for each session at which they are present, provided said board shall hold not to exceed one session per week. They shall each give bond in like manner as the boiler inspectors, with the same conditions, and in the penal sum of five hundred (\$500) dollars each; said bond to be approved by the mayor (As amended by Section 2 of Ordinance No. 3048.)

SEC. 20. If any engineer shall negligently or wrongfully endanger the life of any person by permitting the water to fall below the flues or crown sheets of any boiler or boilers, or otherwise neglect his duties, he shall be deemed guilty of a misdemeanor, and upon conviction thereof, be subject to a fine of not less than twenty-five (\$25) dollars nor more than five hundred (\$500) dollars.

SEC. 24. All fees and fines shall be turned over to the city treas-

urer on the last day of each calendar month, or not later than the first of the following month by the inspector, and he shall make a statement to the city comptroller showing all moneys, from whom and when the collection was made.

All moneys thus reported shall be credited to the general fund, from which fund the expenses of the inspector's office shall be paid. (As amended by Section 3 of Ordinance No. 3048.)

SEC. 25. Any person who shall violate any of the provisions of this ordinance where no penalty is provided, shall be subject to a penalty of not less than thirty (\$30) dollars nor exceeding one hundred (\$100) dollars for each and every offense.

### PEORIA, ILL.

SECTION 1. There shall be appointed by the Mayor a Board of Examiners (which shall consist of three members), two of whom shall be first-class engineers actively engaged in the management of steam engines or boilers at the time of appointment and during term of office; said engineers must have held first-class licenses for at least five years prior to appointment; one of whom shall be the boiler inspector of the City of Peoria, provided said boiler inspector is a practical boiler-maker; and said appointments shall be referred to a committee to report on at the next regular meeting of the Council for the approval of said Council; provided, that no member of said Board of Examiners shall be in any way interested in the manufacture or sale of steam boilers or engines or supplies. It shall be the duty of said Board of Examiners to examine each applicant in pursuance of rules and regulations of this ordinance, and if the applicant is found qualified, the examining engineer shall sign a certificate of qualification, which shall be delivered to such applicant, such certificate to expire one year from date of issue. Reissues shall be made upon payment of a fee of two dollars for engineers' and one dollar for boiler tender's license.

SEC. 2. Said Board of Examiners shall be provided with suitable quarters by the Commissioner of Public Works. Said Board shall make and enforce such rules and regulations for its government as may be deemed proper and desirable, not inconsistent with the provisions of this ordinance and the general law. Said Board, or a majority thereof, shall hold stated sessions twice each month, of such duration as may be deemed requisite for the purpose of examin-

ing and determining the qualifications of applicants for licenses for engineers.

SEC. 3. The Board of Examiners, or a majority thereof, shall have power to examine into the qualifications of applicants, to grant licenses, and, for cause, to suspend or revoke the same. The certificates or licenses shall consist of two grades, viz., first and second grades, and the requirements for each grade shall be determined by said Board of Examiners.

Every application for a license must be made on the printed blanks furnished by the Board of Examiners, and that for an engineer must be accompanied by a fee of five dollars (\$5.00), and that for a boiler or water tender must be accompanied by a fee of two dollars (\$2.00).

SEC. 4. An applicant for license must have had at least three years' practice under the supervision of a practical engineer.

An applicant for boiler tender's license must be a person who has a thorough knowledge of the construction, management and operation of steam boilers. Each applicant must state upon the blank the extent of his experience; must be at least twenty-one years of age, a citizen of the United States, or have declared his intention to become such; must be of temperate habits and good character; all of which must be vouched for in writing by at least three first-class engineers of Peoria, or may be verified under oath by the applicant when required by the Board of Examiners.

SEC. 5. The Board shall have power to suspend the license of an engineer or a boiler or water tender for permitting water to get too low in boiler; for carrying a higher pressure of steam than allowed by law; for an absence from his post of duty, or for any violation of the provisions of this ordinance, or other neglect or incapacity; provided, however, that no license shall be suspended or revoked without first giving the accused party an opportunity to be heard in his own defense. When a license of an engineer or boiler or water tender shall be revoked, no license shall be reissued to the same person for the first offense for thirty (30) days thereafter; for the second offense, for ninety (90) days; for any offense thereafter, his license shall be permanently revoked, and then only upon a full compliance with the conditions and provisions prescribed for an original license. In case of suspension or revocation of license, the fee thereof shall be forfeited to the city.

SEC. 6. Every certificate or license issued to an engineer or boiler

or water tender shall be signed by the majority of the Board of Examiners, sealed with an imprint of the Board's seal, and attested by the City Clerk.

SEC. 7. The Board of Examiners shall cause to be kept in suitable books a full and correct detailed record of its official proceedings, including the names of the members of the Board, the names, ages and residence of all applicants for licenses, the number issued and rejected, the number of licenses suspended, renewed or revoked, the cause therefor, the names of the persons forfeiting licenses, also the full amount of money received and that returned on rejected applications. The financial record must be balanced monthly, and the result thereof, in writing, shall be deposited, on or before the first Tuesday of each month, with the City Comptroller.

SEC. 8. If any member of the Board of Examiners, or any person or employe connected therewith, shall at any time, or under any pretense whatever, himself, or through any other person or persons, receive, or cause to be received, any money, gift, or other valuable thing or compensation, except as herein provided, for the purpose of officially favoring an applicant, or for the purpose of deceiving or defrauding any person or persons, or shall issue a license authorizing any person to act as engineer or boiler or water tender without first having examined and found him or them qualified for such service in accordance with the provisions and conditions of this ordinance, then, in such cases, the member or members of the Board or other persons so offending shall be removed from office by the Mayor, and ever after be debarred from holding any position, official or otherwise, in the service of the City of Peoria; and any applicant who shall himself, or through any other person, offer, or cause to be offered, any money or other valuable consideration to said Board, or any member thereof, or any person connected therewith, for any official act or favor, shall ever be debarred from receiving any license under this ordinance.

SEC. 9. No steam engine or boiler subject to the provisions of this ordinance shall be used, managed or operated in the City of Peoria, except by an engineer or water or boiler tender, as provided herein, who shall have been duly licensed as provided herein, and who shall have and exhibit a certificate thereof. Any person who shall take charge or manage or operate any steam engine or boiler, or any portion of a steam plant, in the City of Peoria, without a proper and valid license, as provided by this ordinance, shall, for

each and every offense, be subject to a fine of not less than five dollars nor more than fifty dollars; and any person, firm or agent, company or corporation, owning or controlling any steam engine, boiler or steam plant, who shall authorize or permit any person or persons, without a proper and valid license as required herein, to take charge of, or to manage or to operate, any steam engine or boiler, or any portion of a steam plant shall, for each and every offense, be subject to a fine of not less than ten dollars (\$10) nor more than two hundred dollars (\$200.00), and each day's violation of the terms of this ordinance, or any of them, shall constitute a separate offense.

SEC. 10. It shall be the duty of the Board of Examiners to see that each boiler plant in the City of Peoria shall have a licensed engineer or boiler or water tender, or both, as provided herein, in charge at all times when working under pressure, whose certificate of qualification shall be at all times displayed in a conspicuous place in the engine or boiler room, and each engineer and boiler tender shall devote his entire time, while boilers are working under pressure, to the duties of the plant under his charge. Any person who has charge of a steam boiler, whose duty it is to keep up the water in such boiler, shall be deemed a boiler or water tender within the meaning of this ordinance, but the provisions hereof for the examination, licensing and regulation of boiler or water tenders shall only apply to boiler or water tenders who are in charge of steam boiler or boilers which are detached from the engine room, or so far removed therefrom or otherwise circumstanced or located as to render it difficult for the engineer in charge of the plant to give it or them his personal attention and supervision.

SEC. 11. Every engineer licensed under this ordinance shall, within the first ten days of January and July respectively of each year, make a written report to the Board of Examiners, of the condition of the engine, boilers and steam apparatus comprising the plant under his charge, and every boiler or water tender shall, at the same time, make to said Board of Examiners a similar report of the condition of the boiler or boilers and steam apparatus under his charge. All additions or changes made in any plant must be reported by the engineer and the boiler or water tender to the Board of Examiners within ten days thereafter.

SEC. 12. The engineers in charge of locomotives shall be exempt from the provisions of this ordinance, and all boilers used for heating

private dwellings, hot-houses, conservatories, and other boilers carrying not more than ten pounds pressure of steam per square inch, and the persons operating them, shall be exempt from the provisions of this ordinance. The police are instructed to report all infractions of this ordinance coming to their notice.

SEC. 13. Said Board hereby created shall not in its salaries and expenditures exceed the amount received from license fees; shall quarterly and yearly make a written report, under oath, to the City Comptroller, of all receipts and expenditures, and pay over to the City of Peoria all balances in their hands. Each member of said Board appointed as provided by Section one (1) of this ordinance, shall receive a salary of three dollars (\$3.00) for each regular meeting actually attended during his term of office.

In case the receipts from the license fees shall be insufficient to pay the above salaries and the legitimate expense of said Board, their salaries above mentioned shall be diminished pro rata to the amount of the deficiency.

#### PHILADELPHIA, PA.

SECTION 1. Be it enacted, &c., That it shall be unlawful for any person or persons to have charge of or to operate a steam boiler or steam engine over ten horse power, in cities of the first-class of this Commonwealth, except locomotive boilers used in transportation, and steam engines and steam boilers carrying less than fifteen pounds of pressure per square inch, unless said person or persons are upwards of twenty-one years of age and holds a license, as hereinafter provided for, and it shall be unlawful for any owner or owners, user or users, of any steam boiler or steam engine over ten horse power, other than those excepted above, to operate or cause to be operated a steam boiler or steam engine without a duly licensed engineer.

SEC. 2 of the above Act, substituted and amended by an "Act of the General Assembly, approved the tenth day of March, A. D. 1903; to become a part obligation of the original Act; Approved April 18, 1899," as follows:

SEC. 2. All persons desiring authority to perform the duties of an engineer shall apply to the boiler inspector of such cities, who shall examine the applicant as to his knowledge of steam machinery and his experience in operating the same, also the proofs he produces



in support of his claim, and if, upon full consideration, the inspector is satisfied that the applicant's character, habits of life, knowledge, and experience in the duties of an engineer, are all such as to authorize the belief that he is a suitable and safe person to be entrusted with the powers and duties of such a station, he shall grant him a license upon the payment of three (3) dollars, authorizing him to be employed in such duties for the term of one year, and such license shall be annually renewed, without examination, upon the payment of one (1) dollar, provided it is presented for renewal within ten days after its expiration. Licenses so granted shall be graded into two classes: One of which shall entitle the licensee to have charge of or to operate stationary steam boilers and steam engines only; the other of which shall entitle the licensee to have charge of or to operate portable steam boilers and steam engines only; such licenses shall not be transferred from one grade to the other without a re-examination, said re-examination to be conducted without cost to the licensee.

No person shall be eligible for examination for a license unless he furnishes proof that he has been employed about a steam boiler or steam engine for a period of not less than two years prior to the date of application, which must be certified to by at least one employer and two licensed engineers.

SEC. 3. The inspector shall investigate all acts of incompetency or misconduct committed by any licensed engineer while acting under the authority of his license, and shall have power to summon before him any witnesses within his respective city, and compel their attendance by a similar process as used in the State courts to compel the attendance of witnesses, and he may administer all necessary oaths to any witnesses thus summoned before him, and after reasonable notice in writing, given to the alleged delinquent, of the time and place of such investigation, such witnesses shall be examined, under oath, touching the performance of his duties by any such licensed engineer, and if the inspector shall be satisfied that such licensed engineer is incompetent, or has been guilty of misdemeanor, negligence, unskillfulness, or has endangered life, or wilfully violated any provision of this law, he shall immediately suspend or revoke his license, as the facts of the case may require.

SEC. 4. Every engineer who receives a license shall, before entering upon his duties, make oath before the inspector, to be recorded with the application, that he will faithfully and honestly according

to his best skill and judgment, without concealment or reservation, perform all the duties required of him by law.

SEC. 5. Every engineer who shall receive a license shall, when employed about any steam plant, place his certificate of license, which shall be framed under glass, in some conspicuous place about the engine or boiler, where it can be seen at all times, and any neglect to comply with this provision by any such engineer shall be deemed a misdemeanor, and on conviction thereof he shall be subject to a fine of not exceeding one hundred dollars, or the revocation of his license, or both, in the discretion of the court.

SEC. 6. All engineers licensed under the provisions of this law shall assist the inspector in his examination of any boiler under his charge, and shall point out all defects and imperfections known to them in the boilers or machinery, and, in default thereof, the license of any such engineer or engineers, so neglecting or refraining, shall be revoked by the inspector.

SEC. 7. Every person who has been employed as a steam engineer, in the city in which he applies for a license, for a period of four years next prior to the passage of this Act, and who files with his application a certificate of said fact, under oath, accompanied by a statement from his employer or employers verifying the same, shall be entitled to a license without further examination.

SEC. 8. It shall be the duty of an engineer when he assumes charge of boilers and machinery, to forthwith thoroughly examine the same, and if he finds any part thereof in bad condition, caused by neglect or inattention on the part of his predecessor, he shall immediately report the facts to the inspector, who shall thereupon investigate the matter, and if the former engineer has been culpably derelict of duty, he shall suspend or revoke his license.

SEC. 9. It shall be the duty of every licensed engineer when he vacates a position as engineer to notify the boiler inspector of such fact, and any failure to comply with this provision shall be punishable by a suspension of the license for such period or periods as the boiler inspector may determine.

SEC. 10. Every owner, or lessee or agent of the owner, or lessee of any steam boiler or steam engine over ten horse power, embraced within the provisions of this Act, or any appliances connected therewith, and every person acting for such owner, lessee or agent is hereby forbidden to delegate or transfer, in any manner whatever, the responsibility and liability for the management or operation, or

the maintenance in good condition and repair, of any such steam boiler or steam engine, or appliances connected therewith, to any person or persons other than the licensed engineer in charge thereof, as shown by compliance with Section 2 of this Act, and any violation of the provisions of this section shall be deemed to be a misdemeanor, to be punished by a fine not exceeding five hundred dollars (\$500), or by imprisonment not exceeding three months, or both, at the discretion of the court. Provided, however, that on the purchase or agreement to purchase a new steam boiler or steam engine over ten horse power, or appliances connected therewith, the builder or builders thereof may contract or agree with the purchaser or purchasers to accept said responsibility, for a period not to exceed sixty days; provided, that there is to be a licensed engineer in attendance thereon.

SEC. 11. All fees received under this Act shall be paid into the treasury of the city wherein the license is granted.

SEC. 12. Any violation of the provisions of Section 1 of this Act shall be deemed to be a misdemeanor, to be punished by a fine not exceeding five hundred dollars, or by imprisonment not exceeding three months, or both, at the discretion of the court.

SEC. 13. Any officer charged with a duty under the provisions of this Act, who shall fail to discharge the same or comply with the requirements thereof, shall, upon conviction, be punishable by a fine not exceeding five hundred dollars, or by imprisonment not exceeding three months, or both, at the discretion of the court.

#### ROCHESTER, N. Y.

SECTION 1. No person shall operate any boiler to generate steam within the city of Rochester, except for railroad locomotive engines and for heating purposes in private dwellings, unless he be twenty-one years of age and shall have been duly examined and licensed for that purpose, as required by the terms of this ordinance, nor shall any person or corporation employ any one not licensed as aforesaid to operate any such steam boiler within said city.

SEC. 2. The Common Council of the city of Rochester, from time to time, shall appoint a committee of three competent persons to examine all applicants for licenses to operate steam boilers and to issue licenses to such as shall be found qualified, and each of the persons so appointed a member of said committee shall be paid a compensation at the rate of one hundred dollars per year, payable

quarterly, but in no event shall the aggregate amount so paid exceed at any time the aggregate amount received for licenses by the City Treasurer under the provisions of this ordinance.

SEC. 3. All applications for examinations hereunder shall be made to the City Clerk in writing, and must state the location and capacity of the boiler-plant the applicant intends to operate. Every application must be accompanied by a certificate of two reputable persons to the effect that the applicant is of temperate habits and good character.

SEC. 4. The said examining committee shall hold meetings whenever deemed advisable, but at least twice each month, and the City Clerk shall furnish them with a suitable room and the necessary stationery. Two of said committee shall constitute a quorum for the transaction of business, and it shall have power to make and enforce such rules and regulations, not inconsistent herewith, as shall be necessary for the proper conduct of said examinations. The examination of each applicant shall have reference to his qualifications to operate the boiler plant described in his application. In case any applicant upon his first examination shall fail to satisfy the committee of his ability to operate the boiler-plant mentioned in his application, a temporary permit may be granted to him to operate said plant for a period not exceeding twenty days, at which time the applicant must again present himself for examination. Such temporary permit shall not be granted more than once to the same person. The said committee shall keep a suitable record of its proceedings, including the names and address of every applicant and the result of all examinations.

SEC. 5. Every person found upon examination by said committee to be duly qualified to operate a steam boiler as aforesaid shall be entitled to receive a license for that purpose, which license shall be signed by said committee or a majority thereof and counter-signed by the City Clerk upon the prepayment to the City Treasurer of the sum of two dollars as a license fee. Every license issued hereunder shall expire one year from the date of its issue, and may be renewed at its expiration for a term of one year upon the payment to the City Treasurer of the sum of one dollar.

SEC. 6. The City Clerk shall keep in his office a book in which he shall enter the license number, the date of the examination, the date of issuing license or the date of refusal, the name of the employer and the location of the boiler-plant the applicant intends to operate,

of all persons licensed according to the provisions of this ordinance, which information shall be furnished promptly to the said clerk by said committee.

SEC. 7. If any person, duly licensed hereunder, shall change his position and take charge of a different boiler-plant than the one specified in his license, he shall, within one week thereafter, notify the City Clerk of such change and present himself for examination as to his qualifications for operating such different boiler-plant, and if found qualified therefor, a license to operate the new plant for the unexpired portion of the year covered by his original license shall be issued to him without further fee.

SEC. 8. Every license granted hereunder shall be kept conspicuously displayed in the boiler-room where the person licensed shall be engaged at work.

SEC. 9. Every license issued under the terms of this ordinance may be revoked or suspended, at any time, by the Common Council of the city of Rochester, by a vote of a majority of the members present at the meeting and voting, upon the report of any two practical engineers detailed by said Common Council for that purpose, stating the ground upon which such license shall be revoked or suspended, and where such license shall have been revoked, as aforesaid, another license shall not, in any case, be issued to the same person within six months from the date of the revocation of the former license held by such person.

SEC. 10. Any violation of this ordinance shall be punishable by a fine of not less than five dollars nor more than one hundred dollars, and in default of the payment of such fine any person so convicted shall be imprisoned in the Monroe County Penitentiary for a term not exceeding one hundred days. (*As amended May 11, 1897.*)

#### **SANTA BARBARA, CAL.**

SECTION 1. The office of Board of Examining Engineers is hereby created to consist of three engineers who have had not less than seven years' practical experience as stationary engineers, and at least two of said Board to be stationary engineers who have been employed not less than two years prior to appointment to office as Chief Engineers in said City of Santa Barbara.

SEC. 2. It shall be the duty of said Board to examine all applicants for engineer's license as hereinafter provided, to have supervision over examining all engineers and to perform such other duties as

are hereinafter provided. Said Board shall hold one meeting a month on the second Tuesday of each month for the purpose of examining applicants for license, and shall hold as many special meetings in each month as their business may require. The members of said Board shall be appointed by and hold office during the pleasure of the Mayor of said City, and they shall receive no compensation for their services.

SEC. 5. The Inspector and Board of Examining Engineers shall be provided with all needed blanks and stationery necessary for their official duties, and said Board shall within ten days after their appointment, organize and appoint one of its members as Chairman and another as Secretary. The Chairman of said Board shall have power to call a special session of the Board whenever necessary. A majority of the members of said Board shall constitute a quorum for the transaction of said business, and said Board shall make a careful and thorough examination as to the qualification of all applicants for engineer's license. The Secretary shall keep a true and correct record of the minutes and proceedings of said Board, and shall keep a register of the names of all applicants designating those found qualified and those not qualified. Said Board shall grant certificates of license to all persons found qualified, and shall charge and collect from each applicant the sum of three dollars. Such license shall be good for the term of one year, unless otherwise revoked, and shall be signed by not less than two members of said Board. The board of Engineers may adopt such rules and regulations as they shall deem proper, not inconsistent with the provisions of this ordinance and the general law. A full Board of Engineers by a unanimous vote shall have power to revoke an engineer's license for inebriety, incompetency or neglect of his duties when in charge of an engine in use, and may order the re-inspection of any boiler whenever they shall deem it necessary for the public safety, but no license shall be permanently revoked without first giving the accused party an opportunity to be heard in his own defense.

SEC. 6. Any owner or user of a steam boiler feeling aggrieved on account of any decision of the said Inspector, may appeal to the Board of Examining Engineers, and upon a thorough and careful investigation of the matter at issue between the parties, a majority of the Board shall decide the question, which decision shall be final in all cases.

SEC. 7. In case any owner or user of any boiler for any cause be

deprived of the services of a licensed engineer he must notify the Inspectors of Boilers and Elevators at once, and may place an experienced person in charge for a time not beyond the date of the next regular meeting of the Board of Examining Engineers.

Where boilers are used and engines run night and day, the owner or user of the same must employ at least two licensed engineers, who may stand watch alternately. Any person intending to erect or cause to be erected or used a boiler or boilers, or other steam generating apparatus, shall notify the said Inspector of such intention in writing, giving the place or location where said boiler, boilers or steam generating apparatus is to be located.

SEC. 10. Every owner or user of any boiler or boilers or steam generating apparatus of five Horse Power or over, when the same are in use, must employ a competent engineer, having an unexpired certificate of license from the said Board of Examining Engineers, and no such owner or user shall employ any person to operate or use the same other than such a competent engineer having an unexpired license, as aforesaid.

SEC. 11. No person shall run or operate any steam boiler or steam generating apparatus in the City of Santa Barbara of five horse power or over without obtaining a certificate of license as herein provided for. Provided, however, that automobiles are expressly excepted from the provisions of this ordinance.

SEC. 12. The City Clerk shall issue to the Board of Examining Engineers certificates of inspection of steam boilers, mangles, steam kettles and passenger elevators, and also engineers' certificates of license regularly numbered and duly signed by said officer in proper denominations, and to meet the requirements of this ordinance with a blank for the owner's or user's name, date, pressure, locality and number of the boiler, mangle or steam kettle, and class of engineer. The Board of Examining Engineers shall issue such certificates to the said Inspector of Boilers and Elevators and charge them to him. The said Inspector shall collect from all owners and users of boilers or other apparatus hereinbefore mentioned the following inspection fees and no more:

For every boiler, five dollars per annum, except for boilers carrying less than ten pounds pressure to the square inch.

For every boiler carrying a pressure of less than ten pounds to the square inch the sum of one dollar for each inspection.

For every mangle, one dollar per annum. For every steam kettle, one dollar per annum.

The foregoing fees where payable per annum are payable upon the first inspection made each year.

For every passenger elevator, one dollar for each inspection, the same to be paid at the time of inspection.

The said Inspector shall, upon receipt of the inspection fees, if the apparatus inspected conforms in all particulars to the requirements of this ordinance, deliver to the owner or user of the same a certificate of inspection herein provided for, duly signed and filled out by the said Inspector. It shall be the duty of the owner or user of such apparatus receiving said certificate of inspection to display the same in some prominent place near where such boiler or other apparatus is being used and operated. It shall be the duty of the said Inspector to make monthly returns to the City Clerk of all fees collected hereunder, giving the names of the persons from whom collected, and said Inspector shall pay such moneys to the City Treasurer at least once in each month. All fees collected hereunder shall be placed in the general fund of said City, and all moneys paid out hereunder shall be paid out only upon warrant duly approved and allowed by the said Council of said City, and shall be paid out of the general fund of said City.

SEC. 13. The said Inspector shall make his semi-annual report to the City Clerk, reporting the full number of boilers in the City, the number in use, the number inspected and the number condemned as unsafe. He shall report the date, name of the owner and the locality of every boiler accident, whether it be from a rupture or collapse of flue or explosion of the shell of the boiler, stating his belief as to the cause thereof. He shall further report the number and names of applicants for engineer's licenses, the number rejected and the number granted certificates. Such reports shall be signed by a majority of the Board of Examining Engineers, and open to the inspection of all persons interested. All reports in this ordinance required to be made by said Boiler Inspector to the City Clerk must be made in duplicate and one copy thereof furnished to the Board of Examining Engineers.

SEC. 16. All engines and boilers of locomotives, used on railroads, and all engineers operating the same exclusively, are exempt from the provisions of this ordinance.

SEC. 17. Every applicant for a license who fails to pass the



examination of the Board shall be required to wait four weeks before making another application, and thereupon the Board shall give him another examination. Any applicant who fails to pass after the third trial shall not be permitted to again appear before said Board for four months. Every engineer licensed by the Board and every engineer whose license is vised by the Board shall notify the said Inspector of any employment which he may enter into as such engineer, and within three days thereafter the name of his employer and the location of the boiler or other apparatus in his charge. Every engineer licensed by the Board or whose license is vised by the Board, shall semi-annually report to the said Inspector during the first three days of the months of January and July of each year, the condition of the boiler or other apparatus and their connections under or in his charge. An application for the renewal of a license shall be made not later than the first meeting of the Board next following the expiration of the license, and unless the foregoing provision is complied with the Board may, at its discretion, order a new examination. All licenses granted to applicants hereunder, and all renewals of the same as hereinbefore provided, shall be good for one year from the time of said granting or renewal, unless sooner revoked. The Board of Examining Engineers shall have the power and it shall be their duty to revoke the license or renewal of a license theretofore granted to any person holding or receiving the same who fails, neglects or refuses to comply with any of the provisions of this ordinance or the duties imposed thereby. It shall be the duty of the Secretary of the Board of Examining Engineers to collect from every applicant for a license before examining said applicant the sum of three dollars, examining fee, and also one dollar before the renewal of any license as hereinbefore provided, which said fees shall be paid by said Secretary to the City Treasurer of said City. Every engineer or other person required by said ordinance to have a certificate of license from the Board of Examining Engineers shall keep the same posted in a conspicuous place at or near the engine, boiler or steam generating apparatus or other apparatus of which he is in charge.

SEC. 18. Any person, firm, or corporation, failing, neglecting or refusing to comply with any of the provisions of this ordinance, or failing to do or perform any of the duties or acts imposed hereby or herein, shall be deemed guilty of a misdemeanor, and on conviction thereof shall be fined in a sum not less than ten dollars nor

more than one hundred dollars, or by imprisonment in the City Jail not less than one day nor more than ten days, or by both such fine and imprisonment. Each day's violation of any of the provisions of this ordinance shall constitute a separate offense.

SEC. 19. Nothing herein contained shall preclude, prevent or bar the collection of said license tax by said City by suit in a Court of competent jurisdiction, nor shall prosecution or punishment hereunder operate as a bar to said suit or collection, but the power to maintain such suit is hereby confirmed and reserved.

### ST. JOSEPH, MO.

SECTION 1. The mayor shall appoint by and with the consent of the Common Council, a boiler inspector, who shall be a practical boiler maker, who has served his apprenticeship at the trade and who has worked at the boiler making trade within the year preceding his appointment; said inspector shall be of good moral character, temperate habits and competent to test and inspect steam generators and all other appliances under steam pressure; said inspector shall not be interested, either directly or indirectly in the sale or manufacture of engines, boilers or any other appliances or apparatus used in connection with steam machinery; said boiler inspector shall hold his office for a term of two years, beginning with the third Monday in April after the annual election and until his successor is appointed and qualified; said boiler inspector is hereby authorized to appoint, by and with the consent of the Mayor, one deputy inspector, who shall possess the same qualifications as the boiler inspector, and perform the same duties in case of temporary absence from the city, sickness or other disability of the boiler inspector and shall serve without compensation from the city, and shall be subject to removal at the pleasure of said boiler inspector.

SEC. 2. The Mayor shall designate and appoint by and with the consent of the Common Council, two persons who shall be practical and mechanical engineers, having had at least five years' experience in the the City of St. Joseph next preceding their appointment, who in connection with the boiler inspector, shall constitute a board of engineers, whose terms of office shall be the same as that of the boiler inspector herein provided.

SEC. 3. The boiler inspector shall devote his entire time and attention to the duties of his office and also perform the duties

of secretary of the board of engineers. He shall carefully inspect and test every stationary boiler and steam generating apparatus under pressure used for manufacturing, heating and mechanical purposes, as provided by this ordinance, including all attachments and connections, located within the City of St. Joseph, at least once annually and shall visit each high pressure boiler in operation within the city limits at least once every three months. He shall keep a complete and accurate record of the names of all owners or users of steam boilers, giving a full description of the boilers inspected by him, and the amount of pressure allowed, the date when last tested. He shall notify all owners or users of boilers of the time when a reinspection and test will be made, at least ten days before the expiration of each certificate of inspection, and appoint a day upon which he will make a re-inspection. The manner of inspection shall be the hammer test and in addition thereto the boiler inspector shall apply the hydrostatic test whenever in his judgment it is necessary. If the hydrostatic test be used, each boiler shall be tested by hydraulic pressure not to exceed one-fourth greater than the ordinary working pressure used, and the certificate of inspection herein provided shall state the maximum pressure at which any boiler may be worked. In case a defect shall be discovered in any boiler or attachment thereto, the boiler inspector shall report the same to the owner or user of said boiler or boilers, and state the facts of the case in writing, giving a description of the particular locality in which each defect may be found, and whether of a dangerous character and necessitating immediate repair. If the boiler inspector shall at any time find a boiler, which, in his judgment, is unsafe, after inspecting the same, he shall condemn its further use. All boilers to be tested by hydrostatic pressure shall be filled with water by the owner or users, and they shall furnish the necessary labor required to work and handle the pumps in applying the test. When leaks occur which prevent a successful test, the boiler inspector shall make a second test, upon receiving notice that all leaks have been repaired. If upon making a second test, the boiler or boilers are still defective, he shall, for each subsequent test, collect an additional inspection fee, but in no case shall he give a certificate until fully satisfied of the safety of the boiler or boilers. All certificates of inspection shall be for one year and no longer.

SEC. 4. The boiler inspector and board of engineers shall at the expense of the city, be provided with all needed blanks and station-

ery needful for their official duties. Said board shall provide for regular sessions and the boiler inspector shall act as secretary and keep minutes of the proceedings. Said Board shall convene for business twice in each month to examine into qualifications of applicants for engineer's license. The boiler inspector shall have the power to call a special session of the board if deemed necessary. A majority of the members of said board shall constitute a quorum for the transaction of business. The secretary shall keep a register of the names of all applicants, designate those found qualified and those not qualified. Said board shall grant licenses, charging therefor each applicant the sum of \$10.00 for engineer's license, \$3.00 to be deposited with the clerk of the board when application is made, each applicant to be allowed three trials. If he then fails to pass a satisfactory examination, the applicant shall then forfeit the money deposited with the clerk of the board, but if the applicant has the capacity, skill, experience and habits of sobriety, requisite to perform the duties of an engineer, and shall pass examination successfully, the board shall grant him a license for the term of one year, upon the payment of an additional \$7.00, and any person thus qualified shall not be refused a license. The fee for each renewal of engineer's license shall be \$2.50. The regular meeting of the board of examination shall take place on the first and third Tuesdays of each month. Said board of engineers shall vise all engineers' licenses presented by the owner thereof, granted him by the United States laws, which shall have the same effect as licenses granted by the board, and the engineers whose licenses are vised by the board shall be subject to the provisions of this ordinance.

All licenses granted shall be signed by not less than two, and may be signed by all members of the board. Any person taking charge of a steam boiler or steam boilers, for heating purposes only, shall be examined by said Board of Engineers, and if found qualified, the said board shall grant him a certificate to that effect upon the payment of \$5.00, said certificate to remain in force for one year from date of issue and may be reissued or renewed by the consent of the board of engineers upon the payment of a fee of \$2.00. Said board of engineers may adopt such rules and regulations as they shall deem proper, not inconsistent with this ordinance and the general law. A full board of engineers, by a unanimous vote, shall have power to revoke an engineer's license for inebriety, dishonesty or neglect of his duties when in charge of an engine or boiler in use.

and may order the re-inspection of any boiler whenever they shall deem it necessary for the public safety, but no license shall be permanently revoked for cause, without first giving the accused party an opportunity to be heard in his own defense.

SEC. 5. Any owner or user of a steam boiler feeling aggrieved on account of any decision of the boiler inspector, may appeal to the remaining members of the board of engineers, and upon a thorough and careful investigation of the matter at issue between the parties, said members of said board shall decide the question, but in case said board fail to agree, then the Mayor shall appoint some competent person who shall sit with the board, and the decision of said three persons, or a majority thereof, shall be final in all cases; provided that the boiler inspector shall not have a voice in any matter in which there is an appeal from his decision.

SEC. 6. In case the user or owner of any boiler shall, for any cause, be deprived of the services of a licensed engineer, he must notify the boiler inspector at once, whose duty it shall be to see that said owner or steam user is supplied with a competent person to perform the duties of an engineer until a licensed engineer can be provided and he may procure an experienced and careful person in charge for a time, not exceeding six days. Where boilers are used and engines run night and day, two licensed engineers must be employed and must stand watch alternately. Any person or persons intending to put in a boiler or boilers into their establishment or building, must apply to the boiler inspector for a permit before setting up any boiler, and said boiler must be set subject to the approval of the boiler inspector.

SEC. 7. All owners or users of any stationary boiler carrying a pressure of ten pounds or over per square inch, shall have the same inspected and tested as herein provided, before and while being used, and at least once a year thereafter and for every neglect or refusal to have such inspection and test, they shall be deemed guilty of a misdemeanor. If owners or users of steam boilers, or engineers in charge of same, shall carry greater pressure than is allowed in the certificate of inspection, granted by the boiler inspector or they, or either of them, shall be deemed guilty of a misdemeanor, and in case of an engineer, his license shall be revoked; or if such owners or users shall use any boiler which has been condemned as unsafe by the boiler inspector, they shall be deemed guilty of a misdemeanor.

SEC. 8. Every owner or user of steam boiler or boilers, or steam generating apparatus of over five horse power, when the boiler or boilers are in use, must employ a competent engineer having a license from the board of engineers and every owner or user of aforesaid, who shall neglect or refuse to employ a licensed engineer as herein provided, shall be deemed guilty of a misdemeanor. And any person acting as engineer having in charge either engine or boiler in use within the corporate limits of the City of St. Joseph, not holding a license as above provided and required, shall be deemed guilty of a misdemeanor. Any person taking charge of more than one steam boiler or steam generating apparatus, under pressure when not in one building or on the premises of one industry, shall be deemed guilty of a misdemeanor. Every licensed engineer shall devote at least eight hours out of every twenty-four to the duties of the plant where he is employed as engineer.

SEC. 10. The boiler inspector shall make a semi-annual report to the comptroller, reporting the full number of boilers in the city, the number in use, the number inspected, and the number condemned as unsafe. He shall report the date, name of the owner, and the locality of every boiler accident, whether it be from a rupture or a collapse of flue, or explosion of the shell of the boiler, stating his belief as to the cause thereof. He shall further report the number and names of applicants for engineers' licenses, the number of rejected and the number granted licenses. Such report shall be signed by the full board of engineers, and open to the inspection of all persons interested.

SEC. 11. The boiler inspector shall receive a salary of one thousand dollars (\$1,000.00) per annum, subject always to the further provisions of this ordinance, which shall be in full for all services rendered by him. He shall give bond to the City of St. Joseph in the penal sum of two thousand dollars (\$2,000.00), with two or more securities to be approved by the comptroller, conditioned for the faithful, skillful and impartial performance of the duties of the office, and that he will fully account for and pay into the city treasury all moneys received by him, as herein provided. The deputy inspector appointed under this ordinance shall give a bond in like manner as the boiler inspector in the penal sum of one thousand dollars (\$1,000.00), with the same condition as required of the boiler inspector, and subject to the approval of the comptroller. The members of the board of engineers, except the boiler inspector,

shall each receive one hundred dollars per year. They shall each give bond in like manner as the boiler inspector, with the same conditions, and in the penal sum of five hundred dollars (\$500.00), said bond to be approved by the comptroller.

SEC. 12. If the boiler inspector or his deputy shall neglect or fail to discharge his or their duty by reason of inebriety, or by neglecting to perform the duties of inspector, or to pay over moneys received for inspection, as provided in this ordinance, or in any manner use their position for corrupt or dishonest purposes, he or they shall be deemed guilty of a misdemeanor, and on conviction thereof be fined in a sum not exceeding one hundred dollars (\$100.00), and forfeit his or their office.

SEC. 13. All engineers, engines and boilers of the fire department of St. Joseph, and all steam rollers, steam automobiles and portable boilers used on the streets of the City of St. Joseph, Mo., are subject to the provisions of this ordinance except that there shall be no fee charged for the inspection of boilers of fire engines, but all locomotive boilers used on railroads, and steam boilers supplied with water automatically, when used only for heating dwelling houses and not carrying a pressure of over ten pounds of steam per square inch, are exempt from the provisions of this ordinance.

SEC. 14. All expenditures for the inspection of boilers shall be charged and paid as expenditures of the office of boiler inspector and board of engineers, and all bills before being paid shall be audited and approved, subject to the provisions of this ordinance and the laws governing cities of the second class. The salary herein provided to be paid to the boiler inspector shall be paid out of the funds collected for the inspection of boilers and for licenses issued to engineers as in this ordinance provided, and in no case or event shall the city be liable for such salary or any part thereof, except so far as the money paid into the city treasury under this ordinance shall be sufficient to pay said salary herein provided to be paid.

SEC. 15. Every applicant for a license who fails to pass the examination of the board is required to wait two weeks before again making application for a license and the board shall then give him another examination; any applicant failing to pass the examination after the third trial, shall not be permitted to appear before said board for six months; every engineer licensed by the board, and every engineer whose license is vided by the board is required to notify the

boiler inspector when he accepts employment, and within three days thereafter, the name of his employer and the location of the boiler or boilers in his charge; and every engineer who shall neglect or refuse to comply with this rule shall be deemed guilty of a misdemeanor. An application for renewal of a license shall be made not later than the first regular meeting of the board next following the expiration of the license, and unless the above provision is complied with, it shall be necessary for the applicant to be re-examined and to take out a new license and pay the regular fee as provided in section 4 of this ordinance. Any steam user failing to place or put in a conspicuous place in engine room or boiler house the boiler inspector's certificate, shall be deemed guilty of a misdemeanor.

SEC. 16. Any person who violates or fails to comply with any of the provisions of this ordinance, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be fined in the sum of not less than five (\$5) dollars, nor more than one hundred (\$100.00) dollars for each offense.

SEC. 17. The city comptroller shall immediately after the passage of this ordinance, procure five hundred copies thereof to be printed for gratuitous distribution among steam users and engineers.

SEC. 18. Nothing in this ordinance shall be construed as applicable to private residences, except where several houses shall be constructed and used as flats or tenements and all heated by one steam plant.

SEC. 19. It shall be the duty of every engineer to have his license posted in a conspicuous place in his engine room where it can be seen by anyone who wishes to see it and it shall be the duty of engineers to revoke the license of any engineer who shall refuse to perform his duty and any engineer having had his license revoked shall not be granted a new license within three months after his license was revoked and it shall be the duty of the boiler inspector to revoke the license of any engineer for neglect of duty or inebriety at any time, and report of same must be made at their next regular meeting, and the boiler inspector shall have the power to enter any building or other premises where steam under pressure is being used and to arrest or cause to be arrested, any incompetent person or persons found in charge of same.

#### ST. LOUIS, MO.

SECTION 2196. Inspector of Boilers and Elevators—Appointment and Qualification.—The Mayor shall appoint, by and with the



consent of the Council, an inspector of boilers and elevators, who shall be a practical mechanical engineer, and competent to test and inspect steam boilers and elevators and all steam-generating apparatus under pressure.

SEC. 2198. Clerk and Assistant Clerk to be Appointed.—He shall also appoint a clerk and an assistant clerk, and who shall receive the same salary as the clerk, and who shall give bond to the same amount as now required of the clerk.

SEC. 2199. Tenure of Office.—The Inspector of Boilers and Elevators, his deputies and clerk, shall hold their offices for a term of four years, and until their successors are appointed and qualified.

SEC. 2201—Board of Engineers Constituted.—The Mayor shall also appoint, by and with the consent of the Council, two persons, one of whom shall be a practical and mechanical engineer, and one shall be a manufacturer of engines and steam machinery; both shall have at least five years' experience in the business, who, in connection with the Inspector of Boilers and Elevators, shall constitute a board of engineers.

SEC. 2202. Duties of Inspector of Boilers and Elevators. The Inspector of Boilers and Elevators shall devote the whole of his time and attention to the duties of his office, and also perform the duties of Secretary of the Board of Engineers. He shall carefully inspect and test every stationary boiler and steam-generating apparatus under pressure used for stationary power, as provided by this chapter, including all attachments and connections, located within the city, at least once annually. He shall keep in the office of the Board of Engineers a complete and accurate record of the names of all owners or users of steam boilers, giving a full description of the boilers inspected by him, and the amount of pressure allowed and the date when last tested. He shall notify all owners or users of boilers of the time when a reinspection and test will be made, at least ten days before the expiration of each certificate of inspection, and appoint a day on which he will make a reinspection.

SEC. 2204. Location and Furnishing of Office. The Inspector of Boilers and Elevators and Board of Engineers shall be provided with an office in the City Hall, suitably furnished, including all needed blanks, stationery, and the mechanical appliances needful for their official duties.

SEC. 2205. Sessions of Board—Shall Have Power to Grant Licenses to Engineers which May be Revoked. Said board shall pro-

vide for regular sessions, and the Inspector of Boilers and Elevators shall act as secretary and keep minutes of the proceedings. (Said board shall convene for business once in each week to examine into the qualifications of applicants for engineers' licenses.) A majority of the members of said board shall constitute a quorum for the transaction of business. The secretary shall keep a register of the names of all applicants, designating those found qualified and those not qualified. Said board shall grant certificates of license, for one year from date thereof, to all applicants who, upon examination, shall have the capacity, skill, experience and habits of sobriety requisite to perform the duties of an engineer, and no person possessing such qualifications shall be refused a license. Each applicant for a license shall at the time of filing his application, pay to the Inspector of Boilers and Elevators a fee of two dollars for each examination, and all money so received by the Inspector of Boilers and Elevators shall be paid into the City Treasury as provided by section twenty-two hundred and nine, but no charge shall be made for renewals. All certificates of licenses granted shall be signed by not less than two, and may be signed by all the members of the board. The Board of Engineers may adopt such rules and regulations as they shall deem proper, not inconsistent with this chapter and the general law. A full Board of Engineers, by an unanimous vote, shall have the power to revoke an engineer's license for inebriety, dishonesty or neglect of his duties, when in charge of an engine or boiler in use, and may order the reinspection of any boiler whenever they shall deem it necessary for the public safety; but no license shall be permanently revoked for cause without first giving the accused party an opportunity to be heard in his own defense.

SEC. 2206. Appeals to Board of Engineers. Any owner or user of a steam boiler or elevator, feeling aggrieved on account of any decision of the Inspector of Boilers and Elevators, may appeal to the Board of Engineers, and upon a thorough and careful investigation of the matter at issue between the parties, a majority of the board shall decide the question, which decision shall be final in all cases; but the Inspector of Boilers and Elevators shall not have a vote in any matter in which there is an appeal from his decision.

SEC. 2207. When Unlicensed Persons May be Employed. The owners or users of steam boilers or engines of a capacity of not over seventy-five square feet of heating surface, and pressure of not over twenty-five pounds of steam to the square inch used for power

only, and all boilers under a pressure of fifteen pounds to the square inch used for heating purposes only, shall apply for a permit to employ a competent, careful and trustworthy person, instead of a licensed engineer, such person to be recommended by two citizens, one of whom shall be a steam user or a licensed engineer, and if found competent by the Inspector of Boilers and Elevators, said permit shall be granted. The Inspector of Boilers and Elevators shall have the power to revoke such permit for cause. In case the owner or user of any boiler shall for cause be deprived of the services of a licensed engineer, he may put a trustworthy person in charge for a time not exceeding twenty-four hours, unless a special permit is obtained from the Inspector of Boilers and Elevators, extending the time, which in no case shall exceed three days.

At all times when boilers are in use and engines run, there shall be in charge an engineer having a certificate of license from the Board of Engineers, which certificate of license shall be displayed in some prominent place where the boilers or engines are in use, and any owner or user as aforesaid, who shall neglect or refuse to employ a licensed engineer as herein provided, or any unlicensed person found in charge of boilers or engines requiring a licensed engineer as above provided, shall be deemed guilty of a misdemeanor, and on conviction shall pay a fine of not less than twenty-five nor more than one hundred dollars. Any engineer having a certificate of license from the Board of Engineers, who shall neglect or refuse to comply with the provisions of this section, shall be deemed guilty of a misdemeanor, and upon conviction thereof, be fined not less than ten nor more than twenty-five dollars.

SEC. 2209. Inspection—Blanks, Fees and Returns. The Register shall issue to the Comptroller certificates of inspection for steam boilers regularly numbered and duly signed by each of said officers in denominations proper to meet the requirements of this chapter, but blank as to the owners' or users' names, date, pressure, locality and number of the boilers. The Comptroller shall issue such certificates of inspection to the Inspector of Boilers and Elevators and charge them to him; the Inspector of Boilers and Elevators shall collect from all owners or users the following inspection fees, and no more: For every boiler five dollars, whether set singly or in sets; where sets of boilers are built one above another only those immediately over the firebed shall be counted. The Inspector of Boilers and Elevators, upon receipt of the money for inspection

fees, shall promptly deliver to every owner or user of any boiler, certificates of inspection of the boilers inspected by him or by his assistant; every such certificate of inspection shall be properly filled up as herein provided, and signed by said Boiler Inspector; said certificate of inspection shall be displayed in some prominent place near where the boilers are used. The Inspector of Boilers and Elevators shall make weekly returns to the City Comptroller of all moneys collected, giving the names of the steam users and candidates for examination, from whom collected, and shall pay the moneys collected into the City Treasury at least twice in each week.

SEC. 2210. Semi-annual Report to Comptroller. The Inspector of Boilers and Elevators shall make a semi-annual report to the Comptroller, reporting the full number of boilers in the city, the number in use, the number inspected, and the number condemned as unsafe. He shall report the date, name of owner, and the locality of every boiler accident, whether it be from a rupture or collapse of flue or explosion of the shell of a boiler, stating his belief as to the cause thereof. He shall further report the number and the names of applicants for engineers' licenses, the number rejected and the number granted certificates and the amount received as fees for examinations. Such reports shall be signed by the full Board of Engineers and open to the inspection to all persons interested.

SEC. 2211. Salary and Bond of Inspector. The Inspector of Boilers and Elevators shall receive a salary of eighteen hundred dollars per annum, which shall be in full for all services rendered by him. He shall give bond to the City of St. Louis in the penal sum of ten thousand dollars, with two or more sureties to be approved by the Mayor and Council, conditioned for the faithful, skillful and impartial performance of the duties of his office, and that he will fully account for and pay into the City Treasurer all moneys received by him as herein provided.

SEC. 2216. Bond and Compensation of Members of Board. The members of the Board of Engineers, except the Inspector of Boilers and Elevators, shall each receive four dollars for each session at which they are present; PROVIDED, said Board shall not hold to exceed one session per week. They shall each give bond in like manner as the Inspector of Boilers and Elevators, with the same conditions, and in the penal sum of five hundred dollars, said bond to be approved by the Mayor and Council.

SEC. 2217. Salaries Paid Out of What Fund. The salaries

of the officers herein created shall be paid out of the appropriation for Board of Engineers and Inspector of Boilers and Elevators.

SEC. 2218. Qualifications of Members of Board and Deputy Inspectors. The Board of Engineers and Deputy Inspectors appointed under this chapter shall each possess the qualifications prescribed in section ten, article four, of the Charter.

SEC. 2219. Misconduct of Inspector, Etc., When Misdemeanor. If the Inspector of Boilers and Elevators, his deputy or assistants, shall neglect or fail to discharge his or their duties by reason of inebriety or by neglecting to perform the duties of inspector, or to pay over moneys received for inspection and examination as provided in this chapter, or in any manner use their position for corrupt or dishonest purposes, he or they shall be deemed guilty of a misdemeanor, and on conviction thereof, be fined in a sum of not exceeding one hundred dollars, and forfeit his or their office.

SEC. 2220. What Exempt from Article. The engineers, engines and boilers of the Fire Department, and the locomotive boilers used on railroads, and steam boilers supplied with water automatically and having no pump or injector, and used only for heating dwelling houses, not carrying under pressure over eight pounds of steam per square inch, are exempt from the provision of this chapter.

SEC. 2221. Application and Examination for License. Every applicant for license who fails to pass the examination of the board is required to wait four weeks before again making application for license, and the board shall give him another examination. Every applicant for license must make application for a license on a blank furnished by the Inspector of Boilers and Elevators for that purpose. Applicant must have at least two years' experience at mechanical or steam engineering, and must write and state his experience on said blank. He shall go before the Inspector of Boilers and Elevators and make oath that the statements set forth in such blank are true facts.

SEC. 2222. Licensed Engineers Must Give Notice of Changes of Employment. Every engineer licensed by the board is required to notify the Inspector of Boilers and Elevators when he accepts or leaves his employment, and within twenty-four hours thereafter the name of his employer and the location of the boilers in his charge. Any engineer who fails to give such notice may have his license revoked by the board.

SEC. 2223. Application for Renewal of Revoked License. Application for renewal of such license shall be made not later than the third meeting of the board next following the expiration of the license, and unless the above provision is complied with, the board may, at its discretion, order a new examination.

SEC. 2225. Licensed Engineer to Make Semi-Annual Report—Failure—Penalty. Any engineer licensed by the board shall, within the first ten days of January, and July, each make a written report to the Inspector of Boilers and Elevators of the condition of all the boilers and apparatus in his charge and if he neglects or fails to comply with this section, or if intoxicated while in the discharge of his duty, he shall be deemed guilty of a misdemeanor, and on conviction thereof, shall, besides the fines otherwise provided for, forfeit his license.

SEC. 2226. Expenditures—How Paid. All the expenditures for horses, horse-feed, harness, wagons, pumps, hose and other proper expenses and necessary apparatus for the inspection of boilers shall be charged and paid as expenses for the office of the Board of Engineers and Inspector of Boilers and Elevators, and all bills before being paid, shall be audited and approved by the Comptroller.

SEC. 2238. Penalty. Any violation of the provisions of this article, for which a penalty is not provided, shall be deemed a misdemeanor, and the person, persons, co-partnership or corporation guilty thereof, shall, on conviction thereof, be fined in a sum not less than ten nor more than one hundred dollars, before the court or courts having competent jurisdiction.

### SIoux CITY, IA.

SECTION 1. The mayor shall, by and with the consent of the City Council, forthwith appoint a board of examining engineers consisting of three persons, who shall hold office until the first regular meeting of the City Council in April, 1899, and until their successors in office shall be duly appointed and qualified.

SEC. 2. At the first regular meeting of the City Council in April, 1899, and annually thereafter, or as soon after said date as practical, said mayor shall, by and with the consent of the City Council appoint a board of examining engineers, one of whom shall hold office for one year, one for two years, and one for three years, and until their successors in office are duly appointed and qualified.

SEC. 3. All of the board of examining engineers shall be sta-

tionary engineers of not less than ten years' experience, and well qualified in the use and construction of boilers, generators, and superheaters and their appurtenances, used for generating steam for power, steaming or heating purposes.

SEC. 4. Each member of the board of examining engineers before entering upon their duties shall execute a bond to the City of Sioux City in the penal sum of One Thousand (\$1000.00) Dollars with two or more sufficient securities to be approved by the City Council, conditioned for the faithful performance of the duties of their office.

SEC. 5. It shall be the duty of the board of examining engineers to grant licenses of the first, second, and third grade to persons examined by them. The first class license qualifies the holder to take charge of boilers of fifty horse-power or over; second class license qualifies the holder thereof to take charge of boilers of twenty-five horse-power or over, up to one hundred and twenty-five horse-power; third class license qualifies the holder thereof to take charge of all boilers of less than twenty-five horse-power, twelve square feet of heating surface to constitute one horse-power. The certificates of license or permits so granted shall run for one year from the date thereof, at which time they shall be renewed.

SEC. 6. Said board of examining engineers shall grant no license, nor issue any certificates of license or permits to any person or persons to take charge of any boiler or other apparatus used for the generating of steam, or subject to steam pressure, until they have satisfied themselves from satisfactory proof furnished by the applicant for such license or permit that he is competent and a safe and proper person to take charge thereof, and for the purpose of determining this fact they shall subject the applicant to such an examination in respect thereto as they may deem necessary before granting such certificate of license or permit. Said board of examining engineers shall also be satisfied, by good and sufficient evidence, that the applicant is competent, reliable, and trustworthy, and not addicted to the excessive use of intoxicating liquors, before granting such certificate of license or permit.

SEC. 7. Should the board of examining engineers discover that the person in charge of any boiler or other apparatus used for the generation of steam is disregarding his or their instructions with reference to safety thereof, or if said person so in charge of said boiler or apparatus is remiss in any of his duties to such extent that

the safety of any person is endangered thereby; or if they shall be satisfied that the person so in charge of said apparatus is not competent, safe, and reliable, or is addicted to the excessive use of intoxicating liquors, it shall be the duty of the said board of examining engineers to revoke any certificate of license or permits they may have granted such person, and at once report to the City Council the reasons for revoking the same and thereafter such person shall take no further charge of said boilers or apparatus or any other apparatus or boiler, without permission from said board of examining engineers.

SEC. 8. If the board of examining engineers, or any member thereof shall take or receive any money or other valuable consideration from any person, for the purpose of deceiving or defrauding any person, or for the purpose of violating any provision of this ordinance, or if said board of examining engineers, or any member thereof, shall issue any certificates of license or permits to any person without having at the time stated thoroughly examined the person so granted a license or permit, he shall be fined in the penal sum of not more than One Hundred (\$100.00) Dollars, and shall be removed from his office by the mayor, and shall ever after be disqualified from holding the same.

SEC. 9. It shall be unlawful for any owner, or owners, user, or users, of any steam boiler, or boilers, or steam generating apparatus to operate the same without an engineer holding a license from the board of examining engineers; provided, the owners or users of steam boilers or engines of a capacity of not over seventy five (75) feet of heating surface, with pressure of not over twenty-five (25) pounds to the square inch, and all boilers not exceeding seventy-five (75) feet of heating surface under a pressure of fifteen (15) pounds to the square inch, used for heating only, may apply for and obtain a permit to employ a careful and trustworthy person instead of an engineer holding a license. Such person to be recommended by two citizens of said City, one of whom shall be an engineer holding a license from the board of engineers, which permit shall be granted by said board. The board of examining engineers shall have power to revoke such permit for cause, and in case the owner or user of any boiler shall from cause be deprived of the services of an engineer holding a license, he may put a careful and trustworthy person holding such permit in charge for a time not exceeding six days.



SEC. 10. When any boiler or engine requiring the services of an engineer holding a first class license is run day and night, the owner or user thereof may employ an engineer holding a second class license not exceeding twelve hours at a time under the instructions of an engineer in charge holding a first class license.

SEC. 11. Every applicant for a license or permit must make application therefor on a blank furnished by the board of examining engineers, and every person granted a license or permit by said board is required to notify them when he accepts or leaves his employment, and, within ten days thereafter, the name of his employer and the location of the boilers in his charge. Any person who fails to give such notice may have his license or permit revoked by the board of examining engineers. Applications for renewals of licenses or permits shall be made not later than the third week preceding their expiration, and unless the above provision is complied with the board may order a new examination.

SEC. 12. In case of the failure of any applicant for a license to pass the examination he may within ten days after receiving notice of such failure make written application to the mayor of said City and also to the said board of examining engineers for a second examination, which shall be granted by said board within ten days after said application is thus made, and said applicant, upon said examination, shall be entitled to have all questions propounded by said board and all answers thereto made by him taken down by a stenographer and transcribed in writing, all at his own cost and expense, and upon failure by him to pass said second examination he may within three days thereafter file a true verified copy of all said questions and answers so transcribed with the mayor of said City, who shall at once appoint a committee of three, two of whom shall be stationary engineers and not members of said board of examining engineers, for the examination of said applicant, all at the expense of such applicant, and only upon the written questions and answers so filed with the mayor, and if said applicant pass said examination before said committee he shall upon order of the mayor, and after the payment by him of all charges and expenses therein made, be entitled to receive from said board of examining engineers a certificate of license of the grade as fixed by said committee and as herein provided. Every applicant for examination for a license who fails to pass the examination, and who fails to apply for and pass a further examination within the time and as herein provided shall

wait such length of time as said board may direct, not exceeding six months, and the board shall give such applicant another examination.

SEC. 13. That whenever the words "license," "certificate," or "certificate of license" appears in this ordinance it shall be construed to mean a license issued by said board of examining engineers under the provisions of this ordinance with the seal of the City thereto attached.

SEC. 14. It shall be unlawful for any person to take charge of or operate any boiler, or boilers, or steam generating apparatus, without first obtaining a license or permit from the board of examining engineers; and it shall be the duty of the City Marshall and members of the police force of the City to see that all the provisions of this ordinance are complied with.

SEC. 15. Every person holding a license or permit from the board of examining engineers shall keep the same posted in a conspicuous place in the engine room where he is employed.

SEC. 16. No person shall be granted a first class license until he furnish said board with satisfactory proof that he has had five years' experience in steam engineering:

No person shall be granted a second class license until he furnish said board with satisfactory proof that he has had three years' experience in steam engineering;

No person shall be granted a third class license until he furnish said board with satisfactory proof that he has had two years' experience at steam engineering.

SEC. 17. That said board of examining engineers, or majority of said board, shall issue all certificates of license, permits, or renewals thereof, and shall charge for all such certificates of license and renewals provided for in this ordinance and granted by them, the following license fees, to-wit: For all grades of licenses the sum of Three (\$3.00) Dollars each and for each annual written renewal thereof the sum of One (\$1.00) Dollar; and all such certificates of license, permits, and renewals shall bear the seal of the City.

SEC. 18. That the sole compensation of said board of examining engineers and the members thereof shall be the fees collected by them for the issuance of certificates of license and annual renewals thereof, to be equally divided among the members of said board, said board shall keep a complete record of all such sums so paid.

SEC. 19. The City of Sioux City shall provide an office with all

instruments, books, papers, and material necessary for the proper performance of the duties of such board of examining engineers, and said board shall hold regular meetings in said office, at least twice each month, on dates to be fixed by said board, and the chairman or any two members of said board may call special meetings when necessary.

SEC. 20. The board of examining engineers shall keep a record of all licenses and permits granted, to whom granted, and the location of the boiler or apparatus in charge of the holder thereof.

SEC. 21. All persons now holding certificates, licenses, or permits under the ordinance passed February 11, 1890, may run under the same until the expiration thereof, at which time they shall make application for a new license or permit, provided that the said board of examining engineers shall be satisfied that the person so holding said certificate, license, or permit is not competent, safe and reliable, or is addicted to the excessive use of intoxicating liquors, they may revoke said license or permit, as herein provided, and thereafter such person shall take no further charge of said boiler or apparatus, or any other boiler or apparatus without permission from said board of examining engineers.

SEC. 22. The provisions of this ordinance shall not apply and shall not be construed to be applicable to boilers or steam generators of any kind used for heating private residences only, nor to any person or persons, in charge of the same.

SEC. 23. Any person failing to comply with, or who shall violate any of the terms, provisions, and restrictions set forth in this ordinance, shall be fined in a sum not exceeding One Hundred (\$100.00) Dollars, or imprisonment for a term not exceeding thirty days.

#### **SPOKANE, WASH.**

The city of Spokane does ordain as follows:

SECTION 1. That all low pressure steam engines and steam boilers in use within the city of Spokane shall be inspected at least once every year, and all high pressure steam engines and steam boilers in use within the city of Spokane shall be inspected at least twice every year.

SEC. 2. The board of public works shall on the first day of October of each and every year cause all steam engines, both high pressure and low pressure used within the city of Spokane, to be inspected by some competent person, who has been a resident of

the city of Spokane, for at least a year before his selection, and who has sufficient knowledge of steam machinery to enable him to regulate or operate any class of steam engines or steam boilers; and on the first day of May of each and every year shall cause all high pressure steam boilers and steam engines to be examined by some person qualified aforesaid.

SEC. 3. Said inspector shall carefully inspect all such engines and steam boilers, and shall give to the owner or owners, person or persons, firm or corporation, using said engine or engines, a certificate of inspection, stating the date of his said inspection and the condition of each and every engine owned or used by said person, firm or corporation and shall also file a copy of said certificate with the board of public works.

SEC. 4. Every person, firm or corporation, owning or using any steam engine or boiler within the city of Spokane shall pay to the person inspecting the same, at the time of making said inspection, the sum of two dollars (\$2.50) and fifty cents for each and every engine or boiler inspected by him. And if any one of said engines or boilers is condemned or pronounced dangerous or unsafe by said inspector, said owners or the person using the same shall immediately cause the same to be put in a good and safe condition, and any failure to immediately repair the same shall be a misdemeanor, and the person guilty thereof, upon conviction, shall be fined no less than ten (\$10) dollars nor more than fifty (\$50) dollars and all costs of prosecution; and the board of public works shall cause the same to be put in good, safe and proper condition at the expense of such owner or person using the same.

SEC. 5. All fees received by said inspector shall be for his use, and in lieu of any salary or compensation from the city of Spokane.

SEC. 6. All persons running or operating steam engines or steam boilers, as engineers, within the city of Spokane, shall first obtain from the board of public works a permit to run and operate steam engines and boilers, and also license as hereinafter provided; that no permit shall be granted to any person or said purposes until he shall have been examined by some competent person possessing the qualifications necessary to inspect steam engines and steam boilers, as required in this ordinance, and by said examiner recommended by said board of public works as suitable and competent to run and operate as engineer steam engines or steam boilers;

provided that said engineer shall be able to read and write and shall not be addicted to the habitual use of intoxicating liquors.

SEC. 7. Every engineer must personally appear before said examiner for examination, and must understand the different parts of steam engines and steam boilers, and be able to explain their use and mechanical movements and the method of putting them in operation and the regulating of their action and guarding against danger, and must understand the valve motion of steam engines in general use and be competent to properly set a slide valve and to reverse stationary engines; and must understand the care and management of steam boilers, the effects of incrustation and scale and the most practical method of preventing and removing the same, and must be able to explain the general causes of derangement in the operation of boiler feed pumps, and the most practical method of preventing and remedying the same.

SEC. 8. It shall be the duty of the board of public works to designate and direct the maximum steam pressure to be carried in any boiler within the city of Spokane, and any engineer who shall carry a greater pressure of steam than directed by the board of public works shall be guilty of a misdemeanor, and upon conviction thereof, shall be fined in any sum not more than fifty (\$50) dollars, nor less than ten (\$10) dollars and the costs of prosecution.

SEC. 9. Every applicant for examination as engineer as aforesaid shall pay to the examiner a fee of fifty cents for his own use in lieu of any other salary or compensation to said examiner by the city of Spokane.

SEC. 10. Every person receiving a permit from the board of public works to run or operate a steam engine or boiler before acting as said engineer shall pay to the city treasurer of the city of Spokane, a semi-annual license fee of one (\$1.00) dollar and no license shall be granted for a less period; and upon presenting the treasurer's receipts for the same and the permit from the board of public works to the comptroller said comptroller shall issue a license to run and operate a steam engine or steam boiler for the term of six months from the date of said treasurer's receipt. And said engineer shall give his entire time and attention to the engine and boiler under his control while it is in active operation.

SEC. 11. All engineers shall instruct all night watchmen or other person or persons whose duty it may be to get up steam, as to their duty and practical mode of procedure, but no night watchman or

other person not a licensed engineer shall be permitted by reason of this clause to continuously operate any steam engine or boiler to which this ordinance applies.

SEC. 12. All engineers shall display their certificates and license in a conspicuous place in their engine room and produce the same whenever requested by a member of the board of public works or any member of the police force of the city, or anybody authorized by the board of public works to inspect steam engines.

SEC. 13. All persons desiring to obtain a license to run and operate steam engines and steam boilers shall request in writing the board of public works for a permit, and shall accompany said request with his certificate of qualifications as engineer, if any he has, and if he has none, then said request shall so inform the said board, and said board may designate some suitable person, possessing the qualifications required herein to inspect boilers and engines to examine said applicant.

SEC. 14. That any company, corporation, association or individual doing business within the city limits of Spokane who shall employ any person who is not properly qualified, as herein provided for, to run, operate, or take charge of any steam engine or steam boiler to which this ordinance applies, shall be deemed guilty of a misdemeanor, and upon conviction thereof, shall be fined in any sum not exceeding one hundred (\$100) dollars nor less than twenty-five (\$25) dollars and costs of prosecution for each and every offense.

SEC. 15. That any person who shall run, operate or take charge of any steam engine or steam boiler, to which this ordinance applies, who is not duly qualified and licensed according to the provisions herein set forth, shall be deemed guilty of a misdemeanor, and upon conviction thereof, shall be fined in a sum not less than twenty-five (\$25) dollars nor more than one hundred (\$100) dollars, or imprisonment at the rate of two dollars per day until such fine is paid; provided, however, that nothing herein contained shall be so construed as to prevent any properly qualified engineer from placing any person having a reasonable knowledge of steam engines and steam boilers in temporary charge of his engine or boiler during his absence.

SEC. 16. That to prevent any unnecessary interruption of business by reason of this ordinance, when a licensed engineer cannot be procured, the board of public works may, when so requested,

place any person who in their judgment may have a reasonable knowledge of steam engineering in charge of any steam engine or boiler, but in no case for a longer period than six days. The said board shall make a record of the same giving the name of such person and by whom employed.

SEC. 17. That nothing in this ordinance shall apply to locomotive engines or boilers.

SEC. 18. All ordinances and parts of ordinances in conflict herewith are hereby repealed.

### TACOMA, WASH,

1. There is hereby created the office of Boiler Inspector, whose duties shall be as hereinafter described.

2. It shall be the duty of the Mayor to appoint a suitable person as Boiler Inspector to hold office during the pleasure of the mayor. The boiler inspector shall be a well qualified, practical and experienced mechanical engineer, and he shall take the usual oath of office before entering upon the discharge of his duties. He shall not be interested directly or indirectly in the manufacture, ownership, or agency of or for steam boilers or articles pertaining thereto.

3. All steam boilers and steam generating apparatus operated in the city of Tacoma shall be inspected and tested once each year by the boiler inspector, which inspection and testing shall be according to the rules and regulations of the United States Marine Laws and when upon such inspecting and testing the boiler inspector shall find any such boiler or apparatus in good and safe condition for operation, he shall certify to such fact and issue a permit for the operation thereof covering the period of one year from the date of such inspection, which permit shall be kept posted in a conspicuous place in the room where the boiler is located, and no person shall cause to be used any such boiler or apparatus unless inspected and a permit is granted therefor, as herein provided.

4. The provisions of this ordinance relative to the inspection and testing of steam boilers and apparatus shall not apply to boilers and apparatus used in private dwellings for heating purposes only, in which the steam pressure does not exceed ten pounds per square inch nor to any steam boiler or apparatus while the same is insured in a reliable boiler insurance company, and a certificate to that fact has been filed with the boiler inspector, nor to any marine boiler or apparatus nor to railway locomotives.

5. The boiler inspector shall be entitled to charge and receive a fee of three dollars for each inspection and test of a steam boiler or generating apparatus, and one dollar additional when he uses or applies the hydraulic test, which however he shall not be required to use or apply unless requested so to do by the owner of the boiler or his agent.

6. In the event that any person interested shall deem himself aggrieved by the decision of the boiler inspector in refusing to grant a permit, they may appeal from his decision, by filing with the mayor a brief statement in writing of their grievances, and the mayor shall thereupon appoint three disinterested experienced engineers to investigate the matter. Said engineers upon taking an oath to render a fair and impartial decision in the matter, shall promptly proceed to an investigation, and render their decision in writing, and file the same with the inspector, who shall thereupon grant or refuse a permit according to said decision, which shall be final.

7. The mayor shall appoint to hold office during his pleasure and without compensation, two persons, who shall be experienced and well qualified mechanical engineers, who shall in conjunction with the boiler inspector, constitute a board of examiners to examine applicants for licenses under this ordinance, and make recommendations thereon to the city council as hereinafter provided. Said examiners shall take the usual oath of office before entering upon the discharge of their duties.

8. No person shall use, operate or cause to be used or operated any steam boiler or steam generating apparatus in the city of Tacoma, unless the same be in direct charge and control at all times while in operation, of an experienced person holding a license of the proper class under the provisions of this ordinance, which license shall at all times be kept posted in a conspicuous place in the room in which this engine or boiler is situated in charge of the person named in said license as licensee.

9. No person shall engage in the business, employment or occupation of a stationary engineer, or take or have charge or control of the operation of any steam boiler or steam generating apparatus in the city of Tacoma, unless he shall have procured and hold a license therefor of the proper class under the provisions of this ordinance.

10. Any person desiring to procure a license as a stationary engineer may apply for the same to the boiler inspector, which application shall be upon a blank to be furnished by the inspector



for that purpose. He shall then be examined as to his qualifications as a stationary engineer, and at his earliest convenience the boiler inspector shall convene the examining board, which board shall proceed to examine the applicant touching his knowledge and practical experience as a stationary engineer. At the conclusion of such examination the examining board shall forthwith transmit to the city council of the city of Tacoma all papers used in such examination, including all questions and answers given, together with their recommendation as to the qualification of the applicant.

11. At its earliest convenience following the making of said certificate and recommendation, the city council shall act upon the same, and in their discretion grant or refuse the license, and cause record of their action to be made in the minutes. Should the council decide to grant the license they shall direct the city clerk to issue to the applicant a license of such class as they find him entitled to for the period of one year, upon his paying to the city treasurer a fee of two dollars and presenting a receipt therefor to the city clerk.

12. Upon the expiration of a license, the board of examiners may in their discretion, recommend a renewal of the same without further examination of the applicant, for a period of one year, and thereupon the city council may order a renewal of the same upon the payment of a fee of one dollar to the city treasurer and presenting a receipt therefor to the city clerk.

13. The licenses granted under this ordinance shall be classified as follows:

First class or chief engineer and a holder of a license of the first class shall be entitled to take entire charge and control of the operation of any steam plant in the city of Tacoma.

Second class or assistant engineer and the holder of a license of the second class shall be entitled to take entire charge and control of the operation of any steam plant in the city of Tacoma not exceeding one hundred and fifty boiler horse power or may act as assistant engineer to the chief engineer of any steam plant in the city of Tacoma.

Third class engineer and the holder of a license of the third class shall be entitled to take entire charge and control of the operation of any steam plant in the city of Tacoma not exceeding fifty boiler horse power or may act as assistant engineer to an engineer of the second class or may act as second assistant engineer to an engineer of the first class.

Fourth class or special engineer, and the holder of a license of the fourth class shall be entitled to take entire charge and control of a particular steam plant for which the same is granted and which plant must be designated in the license.

14. This ordinance shall have no application to a marine or locomotive engineer nor to persons having charge of steam boilers or apparatus used in private dwellings for heating purposes only in which the steam pressure does not exceed ten pounds per square inch while in operation.

15. In case the owner or user of any steam plant shall be deprived of the services of a licensed engineer he may procure an experienced and careful person for a time not exceeding ten days to operate said plant without either himself or said person being subject to the penalties provided for the violation of this ordinance.

16. All fines and license fees collected under this ordinance shall be paid into the general expense fund of the city and all moneys received by the boiler inspector for his services in inspecting boilers shall be retained by him as his compensation in full for all his services.

17. Any person or persons violating any of the provisions of this ordinance shall upon conviction therefor, be punished by a fine not exceeding fifty dollars.

18. All owners and users of steam boilers and steam generating apparatus who have had the same inspected under the provisions of this ordinance shall not be required to have same again inspected until one year after said inspection, and all engineers holding licenses under this ordinance shall not be again required to procure a license until the expiration of their said license.

19. All ordinances or parts of ordinances in conflict herewith are hereby repealed.

AMENDED:

1. There is hereby created the office of inspector of licenses for stationary engineers and the city boiler inspector is ex-officio such inspector.

2. It shall be the duty of such inspector to see that all ordinances relating to stationary engineers and the licensing of the same are strictly enforced.

3. He shall also make a complaint to the judge of the municipal court of the violating of such ordinance.

4. Said inspector shall serve without compensation.

**TERRE HAUTE, IND.**

SECTION 1. There shall be appointed by the Mayor subject to the confirmation of the City Council, three inspectors, who shall constitute the examining Board, and who shall have had at least ten (10) years' practical experience operating steam engines and boilers and steam generating apparatus.

SEC. 2. Any person having had three (3) years' experience in stationary engineering, making application for license, the examining board would have authority to issue license to applicant on strength of proof given by two citizens and free-holders of the City of Terre Haute; providing the applicant could pass an oral examination that would demonstrate his practical ability to said examining board.

SEC. 3. Said Board of Examiners shall be provided with suitable quarters by the City of Terre Haute; said board shall make from time to time such rules and regulations for its government, and that of its employes, if any, as may be deemed proper and desirable, not inconsistent, however, with the provisions of this ordinance, and the general law. Said board or a majority thereof shall hold sessions of such duration as may be deemed requisite, between the hours of 9 a. m. and 10 p. m., for the purpose of examining and determining the qualifications of applicants for license for engineers and for persons having charge of steam boilers as provided herein.

SEC. 4. Any person having had one (1) year's experience, or who is technically qualified, can upon passing an examination that is satisfactory to examining board, whether it be oral or in writing, receive a certificate of license; providing two (2) citizen freeholders recommend such person as to his general good character.

SEC. 5. The Board of Examiners, or a majority thereof, shall have power to examine into the qualifications of applicants, to grant licenses, and for just cause to suspend or revoke the same. Every application for license must be made on a printed blank furnished by the Board of Examiners, and that for an engineer must be accompanied by a fee of Two Dollars (\$2.00), and that for a boiler or water tender must be accompanied by a fee of One Dollar (\$1.00.)

SEC. 6. An applicant for an engineer's license must be a machinist, or engineer having at least one (1) year's experience practically in the management, operation, or construction of steam engines or boilers. An applicant for a boiler tender's license must have a thorough knowledge practically, of the construction, management,

and operation of steam boilers. Each applicant must state upon the blank furnished by the examining board the extent of his experience: must be at least twenty-one (21) years of age, a citizen of the United States or having declared his intention to become such, must be of temperate habits and good general character, all of which must be vouched for in writing by at least two (2) citizens of Terre Haute, who shall be freeholders, or may be verified under oath by the applicant when required by the Board of examiners.

SEC. 7. The board shall have power to suspend or revoke the license of an engineer, or a boiler or water tender who permits his engines or boilers to be operated in an unsafe condition, and who fails to report the unsafe condition of his machinery at once to his employer and to the Board of Examiners of the City of Terre Haute. No license, however, shall be revoked or suspended without giving the accused party an opportunity to be heard in his own defense. When the license of an engineer or boiler or water tender shall be revoked, no license shall be issued to the same person for the first offense for a period of thirty (30) days. For any offense thereafter his license shall be permanently revoked, and then only upon full compliance with the conditions and provisions prescribed for an original license. In case of suspension or revocation of a license, the fee thereof shall be forfeited to the city.

SEC. 8. Every certificate or license issued to an engineer or boiler or water tender shall be signed by a majority of the Board of Examiners, sealed with an imprint of the board's seal, and attested by the Clerk.

SEC. 9. If any member of the board of Examiners, or any person or employe connected therewith, shall at any time or under any pretense whatever, himself or through any other person or persons receive, or cause to be received any money, gift or other valuable thing or consideration, except as herein provided, for the purpose of officially favoring any applicant, or for the purpose of deceiving or defrauding any person, or persons, or shall issue a license authorizing any person, or persons, to act as engineer or boiler or water tender without first having examined and found him qualified for such service in accordance with the provisions and conditions of this ordinance, then in such case, the member or members of the board or other persons so offending shall be removed from office by the Mayor; and ever afterwards be debarred from holding any position, official or otherwise, in the service of the City

of Terre Haute. Any applicant who shall himself or through any other person, offer or cause to be offered any money or other valuable consideration to said board, or any member thereof, or any person connected therewith for any official act or favor, shall ever after be debarred from receiving any license under this ordinance.

SEC. 10. No steam engine or boiler subject to the provisions of this ordinance shall be used, managed or operated in the City of Terre Haute, except by an engineer or boiler or water tender as provided herein, and who shall have been duly licensed as provided herein, and who shall have and exhibit a certificate thereof. Any person who shall take charge of or manage or operate any steam engine or boiler or any portion of a steam plant within the City of Terre Haute without a proper and valid license as provided by this ordinance, shall for each and every offense be subject to a fine of not less than twenty dollars (\$20.00) nor more than fifty dollars (\$50.00.) And any person, agent, firm, corporation, or company owning or controlling any steam engine, boiler, or other steam plant, who shall authorize or permit any person or persons without a proper and valid license as required herein to take charge of, or to manage, or to operate, any steam engine or boiler, or any portion of a steam plant, shall for each and every offense, be subject to a fine of not less than fifty dollars (\$50.00), nor more than one hundred dollars (\$100.00), and each day's violation of the terms of this ordinance or any of them shall constitute a separate offense.

SEC. 11. It shall be the duty of the Board of Examiners to see that each boiler plant in the City of Terre Haute shall have a licensed engineer, or boiler or water tender, or both, as provided herein in charge of at all times when working under pressure, whose certificate of qualification shall be displayed in a conspicuous place in the engine and boiler-room, and each engineer and boiler and water tender shall devote his entire time while boilers are working under pressure, to the duties of the plant under his charge. Any person who has charge of a steam boiler whose duty it is to keep up the water in such boiler shall be deemed a boiler or water tender, within the meaning of this ordinance, but the provisions hereof for the examination, licensing and regulation of boiler or water tenders, shall only apply to boiler or water tenders, who are in charge of a steam boiler, or boilers which are detached from the engine room, or so far removed therefrom, or otherwise circumstanced or located

so as to render it difficult for the engineer in charge of the plant to give it or them his personal attention and supervision.

SEC. 12. Every engineer licensed under this ordinance shall within the first ten (10) days of January and July, respectively, of each year, make a written report to the Board of Examiners of the condition of the engines, boilers and steam generating apparatus comprising the plant under his charge. And every boiler or water tender shall at the same time make to said Board of Examiners a similar report of the condition of the boiler or boilers and steam apparatus under his charge, all additions or changes made in any plant must be reported by the engineer or boiler or water tender to the Board of Examiners within ten (10) days thereafter.

SEC. 13. Engineers in charge of locomotives shall be exempt from the provisions of this ordinance, and all boilers used for heating private dwellings, hot houses, conservatories, and other boilers carrying not more than ten (10) pounds pressure per square inch of steam, and the person or persons operating them shall be exempt from the provisions of this ordinance. The police are instructed to report all infractions of this ordinance coming to their notice.

SEC. 14. Said board hereby created shall not in its expenditures exceed the amount received from license fees. They shall quarterly and yearly make a written report under oath to the City Comptroller of all receipts and expenditures, and pay over to the City of Terre Haute all balances in their hands. The salary of the Board of Examiners shall be twenty-five dollars (\$25.00) per year each. In case the receipts from the license fees shall be insufficient to pay above salaries, and the legitimate expenses of said board, their salaries above mentioned shall be diminished pro rata to the amount of the deficiency.

#### YONKERS, N. Y.

SECTION 156. The use of steam boilers, except as authorized by this article, is hereby prohibited, and no person shall use, or permit any other person to use, a steam boiler until the same shall have been duly inspected and the use thereof permitted and licensed, as in this article provided; nor for a longer time than authorized by license, as hereinafter provided; nor beyond the time authorized in such license, nor after such license shall have been revoked.

SEC. 157. No person shall operate, manage or run a steam engine

or boiler except such person as shall have been examined and licensed so to do under the provisions of this article.

SEC. 158. There shall be an Inspector of Engines and of Steam Boilers, and two Examiners of Engineers, who shall be nominated and with the consent of the Common Council appointed by the Mayor. The said Inspector shall be a practical machinist and Engineer of at least five years' practice and experience and fully acquainted with the applied philosophy of steam. The said Examiners shall each be practical engineers, not having charge of any engine or boiler in the city. The term of office of said Inspector and Examiners shall begin upon the first day of October. They shall severally hold their office one year, and until their successors are appointed and shall have qualified. The provisions of Section 11 of Title 11 of the Charter of the City shall apply to said officers. The penalty of the bond required from said Inspector shall be two hundred and fifty dollars.

SEC. 159. The said Inspector shall be a resident of the City, and the title of his office shall be: "The Inspector of Engineers and of Steam Boilers of the City of Yonkers," and the title of the office of said Examiners shall be: "Examiners of Engineers of the City of Yonkers." The said Examiners shall be entitled to no fee or compensation, and the said Inspector shall receive no other compensation than is prescribed in this article. The said Inspector and Examiners shall constitute a board of Examiners for the examination of all applicants for examination and license as engineers under the provisions of this article, and the said Inspector shall keep a record of all engineers examined by such Board of Examiners, specifying in all cases the name of the person examined, the date of the examination and the particulars of the examination, and the date of any license granted on such examination, and of all renewals thereof, and of any other matter or thing with reference to such examination and license and to the person licensed which he shall think proper for the protection of the public. He also shall keep a record of all boilers inspected, the manner and time of the inspection, the owners' names and the place of inspection, a description of such boilers and of the attachments and appliances thereof, the date and particulars of any license granted for any such boiler and of any changes authorized to be made in any such boiler or its appliances, and the steam pressure desired by the owner and the amount of steam pressure authorized. He shall keep an accurate

account of all fees by him received. He shall make to the Common Council, on the first day of May, August, November and February, of each year, reports showing the names of persons licensed as engineers and the number of their licenses respectively, when issued, and the reason why not granted when a license is refused; of the boilers inspected, the names of the owner and the location of the boilers, the number of the licenses of such boilers, respectively when issued, and the reason why not licensed when a license shall have been refused; the fees by him received and from whom received, and he shall at the same time report the condition of steam boilers in the city, specifying imperfections in boilers and derelictions of engineers or persons in charge, and making such other suggestions as will tend to the safety of life and property in the use of steam. He also, from time to time, and as often as it shall occur, report in writing to the Mayor all violations of this article. Said Inspector at the expiration of his term of office, or when suspended from office, shall deliver to the City Clerk all records, books, papers, and other property belonging to the city.

SEC. 160. The said Inspector shall annually inspect all steam boilers set up or to be set up, used or to be used, in said city, and in all appliances connected therewith, and test the same. He shall do so at such times as shall interfere as little as possible with the business connected with the use of steam generated in such boilers. He shall give reasonable notice of the day and hour of day when he will make such inspection and test, by notice in writing to be delivered to any person found in charge of any such boiler. The strength and security of such boilers shall be tested by hydrostatic pressure or otherwise, and he shall limit the pressure of steam to be applied to or upon such boilers respectively. In limiting the amount of pressure, whenever the boiler under test will bear the same, the limit desired by the owner shall be allowed and licensed by the Inspector.

SEC. 161. In case any steam boiler or the appliances or apparatus connected therewith shall be deemed by said Inspector, after inspection and license, to be insecure or dangerous, he shall prescribe in writing to the owner such changes and alterations as may render such boilers, apparatus and appliances secure and devoid of danger, and in the meanwhile, and until such changes and alterations are made, and such appliances attached, such boiler, apparatus and appliances may be taken under his control, and all persons are



hereby prohibited from using the same except under such conditions and restrictions as the said Inspector may prescribe in writing.

SEC. 162. The hydrostatic pressure applied by such Inspector in testing any steam boiler shall in no case exceed the limit of elasticity of the iron of which it is made. When the elasticity of the iron of which the boiler is made shall have been ascertained by the officers of the United States Government, and is known, such shall be the assumed strength of the iron; when not so ascertained and known the limit of elasticity assumed shall not exceed 9,220 pounds of pressure per square inch of a section when double riveted by machine, or 8,925 pounds per square inch when double riveted by hand, and 8,180 pounds per square inch when single riveted.

SEC. 163. No person shall subject or permit any other person to subject any boiler to a higher steam pressure than that specified for its use in the license to be issued, which shall in no case exceed seventy-five per cent. of the hydrostatic pressure applied on the inspection.

SEC. 164. No steam boiler shall be used which shall not have a safety valve of sufficient area to carry off steam as fast as generated, and attached thereto an escape pipe of like area leading direct to the open atmosphere. No boiler shall be used which shall not have some sufficient and appropriate appliance for supplying it with water when the engine is not in operation. No boiler shall be used without a one and a quarter inch cock attached thereto and which shall not have three or more gauge cocks, also a glass water gauge, all properly affixed in the proper places and in good working order. No person shall use or cause to be used, or permit to be used, any steam boiler in said City not so provided, and no person shall load, lock or hamper the safety valve of any boiler so that steam applied to the limit of pressure will not freely escape therefrom. The said Inspector is hereby authorized and empowered, after having inspected and tested, as in this article provided, any steam boiler, to issue to the owner of such boiler a license under his hand, licensing and permitting the use of such boiler, which shall, after such inspection and test, have been found by him safe for use. Such license shall, as near as may be, describe the boiler inspected, tested and licensed, the name of the owner, the date when inspected and tested, the number of pounds per square inch to which subjected, the number of pounds pressure of steam

desired as the limit by the owner, the number of pounds per square inch permitted and authorized, the time during which such boiler may be used under such license, not exceeding one year, and the day when such license shall expire; such license shall also particularly show how and in what manner provided as to all the particulars required in this article. All such licenses shall be numbered consecutively. Such licenses shall in all cases be conspicuously displayed at all times in the engine or boiler room.

SEC. 165. No such license shall be used on any other boiler than the one for which it was issued.

SEC. 166. If any boiler shall be removed or reset after any such inspection or test, such act of removal or resetting shall work the revocation of the license.

SEC. 167. After a boiler shall have been inspected and tested no change shall be made therein, or in the setting thereof, without notice to such Inspector in writing of the intention to do so, and the change or addition authorized by him by endorsement thereof upon the license already issued.

SEC. 168. No person shall, without a certificate of qualification or license, to be issued by said Inspector, as in this article provided, operate, manage or run any steam engine or boiler, within said city, and then only while license shall be of force.

SEC. 169. No person having charge or control of any steam engine or boiler, either as owner, superintendent or employe, shall employ, engage, authorize or permit any person to operate, manage or run any steam engine or boiler, except a person having a certificate of qualification and license, to be issued as in this article provided, and only when such license is in force.

SEC. 170. It shall be the duty of the aforesaid Board of Examiners to examine all persons proposing to operate, manage or run steam engines or boilers, and to certify the qualifications of such as they shall find competent, and to license such persons to operate, manage and run steam engines or boilers either as first or second class engineers, as in section 171 provided. The said Inspectors and Examiners shall, within ten days after they shall be appointed and have qualified, publish a notice for two weeks successively, in the official city newspapers, of a time and place when and where they will attend, to receive engineers, and at such time and place they shall attend and sit as a Board of Examiners and then receive such applications, make such examinations, and con-

tinue the same from time to time, without delay, until they shall have completed the examination of all who shall then apply, and thereafter they shall attend and examine all other persons applying for such examination and license, at such time and place as they shall appoint, not more than ten days after the receipt by them of any application for such examination. Persons desiring such examination shall apply to said Inspector in writing, specifying in full their names, place of residence, by street number, if possible, their present employment, the length of time of their employment as engineers, the places where employed for one year last past and by whom employed, and the names of at least three residents of the said city acquainted with their habits or sobriety. Such applications may be made to said Inspector, upon receiving any such application in writing, forthwith to notify the said Examiners thereof, and to agree with them upon the time and place for such examination, and to notify the applicant thereof.

SEC. 171. Every person examined for certificate and license as an engineer shall be examined by said Board of Examiners as to his knowledge of the mechanism of steam machinery and the construction thereof, his mechanical skill, general knowledge and experience, and his habits of sobriety. There shall be two classes of license one to first-class engineers, and one to second-class engineers. To all such persons as shall satisfactorily show by such examinations, their qualifications and competency to manage, operate and run a steam engine or boiler, without hazard to life and property, the said Inspector is hereby authorized and required forthwith to issue a certificate of qualification and license, which shall be signed by said Inspector and countersigned by said Examiners. Such license shall specify the class in which the person to whom it is issued is granted, either as first or as second-class engineer. No license except to a first-class engineer, shall authorize such person to operate, run or manage a steam engine, or boiler, when the engine, if any is connected therewith, shall be in operation. The license to a second-class engineer shall only authorize the person to whom it is issued to have charge of a steam boiler when not connected with any engine, or when the engine connected therewith shall not be running or in operation. All such licenses shall be for one year from the date thereof. Such licenses may be renewed by said Board of Examiners for a like period by appropriate endorsement thereon. No such certificate

and license shall be issued to any person if it appears to said Board of Examiners that such person lacks natural capacity, mechanical skill, knowledge or experience, or is unfitted by habits of insobriety, to perform his duties with safety to life and property; and for like reasons a renewal of any license granted must be refused when such Board shall so determine, and upon satisfactory information to said Board of Examiners of any such deficiency, such Board may revoke any such license granted.

SEC. 172. Any person feeling himself aggrieved by any decision, order or ruling of said Inspector or Board of Examiners, may appeal therefrom to the Mayor of said city by filing with the City Clerk a notice in writing of such appeal, and paying to the City Clerk the sum of ten dollars. Such notice shall specify the decision, order or ruling appealed from, and the reason why the same is claimed to be wrong or erroneous. The City Clerk shall forthwith notify the Mayor of such appeal, who shall within twenty-four hours thereafter attend, at the City Clerk's office, to hear and decide such appeal, and he shall notify the appellant and said Inspector and said Board of Examiners, and shall obtain such other advice as to the matter as he may deem proper, and he may affirm, reverse or modify the decision, order or ruling of said Inspector or Board of Examiners, by his order in writing, to be filed without delay with the City Clerk, and the said Inspector or said Board of Examiners shall forthwith proceed to carry out and enforce such order of the Mayor. In case any such order, decision or ruling of said Inspector or said Board of Examiners be wholly reversed by the Mayor, the money paid by such appellant to the Clerk shall be returned to the appellant.

SEC. 173. When any steam boiler shall have been inspected and insured by any insurance company organized and authorized by law to insure steam boilers, and a certificate of inspection and of insurance thereof shall have been issued and delivered by such company to the owners thereof, such certificate of inspection and of insurance shall by the owner of such boiler be presented to the said Inspector of Engineers and Boilers, at or before the time fixed by the said Inspector for the inspection and testing of said boiler, and in the notice prescribed in Section 160 of this Article, shall state the fact that he has such certificate of inspection and insurance, and if the said Inspector of Engineers and Boilers shall approve of such certificate, and of the company issuing the same,

and of the manner of the inspection and the results thereof, as stated therein, he shall write upon the face of the certificate the word "approved," and sign and date the same, and he may thereupon issue a license for such boiler, without actual inspection and testing, stating in such license the matters above required to be stated in such license, obtaining his information of such matters from such certificate, where such certificate shall state such facts, and he shall in such license state the fact of such boilers not being actually inspected and tested by him because of such certificate of inspection and insurance. When such certificate of inspection and insurance does not state all the matters necessary to be stated in such license, he shall obtain such facts from actual examination or inspection or testing as the case may be.

SEC. 174. Any person violating any provision of the foregoing sections 156 and 165 of this article shall forfeit and pay a penalty of one hundred dollars for each and every such violation, and when the violation shall be continued from day to day a further penalty of one hundred dollars for each and every day such violation shall be continued.

SEC. 175. Any person violating any of the provisions of the foregoing sections 161, 163, 164 and 167 of this article shall forfeit and pay a penalty of fifty dollars for each and every such violation, and when the violation shall be continued from day to day, a further penalty of fifty dollars for each and every day such violation shall be continued.

SEC. 176. Any person violating any of the provisions of the foregoing sections 157, 168 and 169 of this ordinance shall forfeit and pay a penalty of twenty-five dollars for each and every such violation, and when the violation shall be continued from day to day a further penalty of twenty-five dollars for each and every day such violation shall be continued.

SEC. 177. The Inspector of Engineers and Steam Boilers shall collect and receive the following fees, all of which shall be paid before the performance of the particular service for which the fee is charged.

1. For the examination of a steam engineer, the sum of two dollars, to include the fee for certificate and license to be granted when the person shall be found qualified, and for every endorsement of renewal of such license the sum of fifty cents.

2. For inspecting and testing a single steam boiler, five dollars,

and when two or more steam boilers are connected with the same engine and may be and are inspected and tested at the same time, the sum of three dollars for each boiler after the first. When the inspection of such additional steam boilers may not be made at the same time with the first boiler, five dollars for such additional boiler. The foregoing to include the fee for the license to be issued to authorize the use of such boiler.

3. For inspecting a certificate of inspection and insurance of a steam boiler issued by an insurance company and issuing a license for such boiler, one dollar, and for making any further necessary examination of a boiler, to ascertain facts not stated in such certificate, the further sum of one dollar.

4. The said Inspector shall pay over to the City Treasurer one-quarter of all such fees and the balance shall be retained by him to his own use.

SEC. 178. This ordinance shall not apply to railroad locomotives used as such, nor to boilers actually used for propelling steam vessels navigating the Hudson River, when the same shall have been inspected and licensed by the laws of the United States or in pursuance thereof. Nor shall this article apply to steam boilers solely used for heating purposes, nor to persons operating the same.

#### FULTON COUNTY, GA.

(INCLUDING ATLANTA.)

SECTION 1. Be it enacted by the GENERAL ASSEMBLY OF THE STATE OF GEORGIA, that the commissioners of roads and revenues for the county of Fulton may in their discretion elect a board to consist of three practical engineers to be known as, "THE BOARD OF EXAMINERS OF ENGINEERS." The term of office of the members of said board shall be three years; but at the first election one member shall be elected for one year, one member shall be elected for two years and one member shall be elected for three years, said commissioners shall act on the subject of electing or appointing a board at the first regular meeting after the approval of this act, but if for any reason, such action should not be taken, said commissioners may act at subsequent meeting.

SEC. 2. Be it further enacted that said board of examiners of engineers, when appointed, shall take and subscribe an oath before the Judge of the Superior court or ordinary of said county faithfully

and impartially to discharge their duties, said board upon taking oath and qualifying as aforesaid, shall organize and elect one of their number chairman and another secretary, and all official acts of the board shall be kept and recorded by the secretary in a book of minutes.

SEC. 3. Be it further enacted that said board of examiners of engineers shall give public notice of their organization, and of their time and place of meeting and shall notify all persons engaged in running or operating stationary engines or steam boilers in said county to come forward and obtain license before proceeding to further carry on such business or calling.

SEC. 4. Be it further enacted that said board of examiners of stationary engineers shall have power to issue license to all engineers or assistant engineers who have heretofore been examined and licensed by any other board of similar kind or character in Fulton county; but all new applicants and all who have not been examined by said board touching their competency and fitness to do the work as engineers or assistant engineers to run and operate any stationary engine or boiler in said county, said board may make rules and regulations for the examination of engineers and assistants which when approved by commissioners of roads and revenues for said county shall be of force and binding upon said board and all persons holding or applying for license under it.

SEC. 5. Be it further enacted that no person shall run or operate any stationary steam engine or boiler in said county of Fulton without a license from the said board and no person shall employ or cause to be employed any engineer to run or operate a stationary engine or boiler in said county who has not secured a license as aforesaid.

SEC. 6. Be it further enacted that any person who shall knowingly employ or cause to be employed any person to run or operate a stationary engine or boiler, who has not been licensed by said board as a stationary engineer or assistant engineer or who shall continue to employ such person after notice that he has not been licensed shall be guilty of a misdemeanor and punished as prescribed in section 4310 of the code of Georgia.

SEC. 7. Be it further enacted that any person who shall as engineer or assistant engineer operate and run or attempt to operate and run any stationary engine or boiler in said county without first having obtained license from said board of examiners

shall be guilty of a misdemeanor and upon conviction shall be punished as prescribed in section 4310 of the code of Georgia.

SEC. 8. Be it further enacted that said board of examiners of engineers shall have the right to charge, with the approval of said commissioners of roads and revenues, a license fee, to be paid by all applicants and such fee shall be in lieu of all other compensation to said board.

Sec. 9. Be it further enacted that said board of examiners shall make quarterly reports of all their acts and doings, to the commissioners of roads and revenue of said county and of all fees collected by them and the names of all persons licensed as engineers and assistants.

### RULES.

1. Any person desiring to be examined for a license to run and operate steam boilers and stationary engines in Fulton county, shall make application in writing to the Board of Examiners of Engineers of said Fulton county, such application to be endorsed by three reputable citizens of this county, one of whom shall be a licensed engineer, said three citizens certifying to the good character and sober habits of the applicant, and that said applicant has had not less than one year's experience as an engineer, or one year's experience as an apprentice under a licensed engineer, and no license shall be issued by said Board of Examiners to any one until after a full compliance with this rule.

2. Licensee shall be granted to only such engineers as after a careful examination said Board of Examiners shall be satisfied are competent to have full charge of the class of engines and boilers covered by the license issued to them.

3. Said Board of Examiners shall classify all licenses in accordance with the character of the engines run by stationary engineers, from the plain slide valve engine to that employing the most difficult and complicated machinery. But the license must show on its face the character or class of same.

4. Said Board of Examiners shall have the authority to issue licenses to assistant engineers, classifying them as above provided, and issue to the same only such license as may cover the character of the engine, which in their judgment, such assistant engineer is competent to have charge of, and then only when the chief engineer in charge of the same engine has a full license covering the class to which it belongs. Said chief engineer to be under the instructions



and guidance of his Board of Examiners to take charge thereof during the absence of the chief engineer in case of temporary sickness or other disability.

5. All engineers and assistant engineers while in charge of an engine, holding licenses from said Board of Examiners, shall report in writing to said Board any accident that may occur to either the engine or boiler in his charge immediately after its occurrence, furnishing a complete and detailed statement of the facts, including his opinion as to the cause of the accident.

6. Whenever any engineer or assistant engineer has received a license of one class, and desires to be licensed in a higher class, or in the case of an assistant engineer to be licensed as chief engineer, he may make application to the Board of Examiners for that purpose, and after a re-examination, said engineer or assistant engineer may be granted such higher license, if in the opinion of said Board of Examiners he is competent to take charge of such engine as may be covered thereby.

7. Said Board of Examiners shall have the authority, and it shall be their duty, to revoke any license granted, upon proof of negligence of duty or insobriety of any engineer or assistant engineer holding such license, or in case it shall be shown that said engineer is incompetent to have charge of the class of engine covered by his license, to reduce his license to a lower class. Proof of the facts to authorize a revocation or reduction of the license may be furnished to said Board of Examiners either in writing or orally, as they may determine. The accused engineer shall be furnished with a written copy of the charges at least five days prior to the hearing, in order that he may have opportunity to answer the same. When charges are preferred against any engineer or assistant engineer, the said Board of Examiners shall be authorized to at once revoke the license of such engineer, or assistant engineer, if it is not possible to serve him with a copy of charges, and shall also be authorized to revoke said license pending the hearing of said charges, provided in their judgment the public safety and service will be protected thereby. It shall also be the duty of the said Board of Examiners and its members, if they know of any good reason why a license after being issued should be revoked, to proceed in all other respects as if charges had been preferred by anyone else as above stated.

8. Said Board of Examiners may from time to time, when

called upon by any engineer or assistant engineer to do so, furnish such instructions to such engineers as to improved appliances connected with the class of engines covered by his license, or upon other subjects useful to know in connection therewith, as they may see proper, with the view to educate and improve the standing of engineers in this county.

9. Said Board of Examiners shall keep a full record of their proceedings, of the main questions and answers given to and received from any applicant for license appearing before them whether licensed or not, and also of the names of all engineers and assistant engineers whom they may license, as well as the names of those whom they reject, a copy of which record shall be filed by said Board of Examiners with the Clerk of the Board of Commissioners of Roads and Revenues of Fulton county, quarterly, on the first day of January, April, July and October, in each year. Said report to be filed in the office of the Commissioners of Roads and Revenues shall also include the number of accidents, if any, to engines and boilers which have occurred in the previous quarter, and their opinion as to the cause of the same, and shall contain such recommendations as said Board of Examiners may see fit to make.

10. The failure on the part of the said Board of Examiners to keep the above record and file the above reports in accordance with these rules, shall subject the members of said Board of Examiners, or such of them as may be shown to be responsible therefor, to removal from office.

11. When any person shall, after written notification from said Board of Examiners, continue to run or operate any stationary engine or boiler in Fulton county without a license from said Board of Examiners covering the class of engine which he has in charge, or whenever any person shall knowingly employ or cause to be employed any person to run or operate a stationary engine or boiler in Fulton county who has not been licensed by the said Board of Examiners, such person shall be prosecuted by said Board of Examiners under the criminal laws of this state.

12. Each license issued by said Board of Examiners shall state that the same is issued and accepted subject to the rules and regulations of said Board.

13. The said Board of Examiners shall receive a fee from each person examined by them for a license as either an engineer or assistant engineer, of Five Dollars (\$5.00) in each case, which

fee shall be required to be paid prior to the examination of the applicant and whether the license is issued to him or not.

### DISTRICT OF COLUMBIA.

#### AN ACT TO REGULATE STEAM ENGINEERING IN THE DISTRICT OF COLUMBIA.

Be it enacted by the Senate and House of Representatives of the United States of America assembled, That it shall be unlawful for any person to act as a steam engineer in the District of Columbia who shall not have been regularly licensed to do so by the Commissioners thereof.

SEC. 2. That all persons applying for such license shall be examined by a board of examiners composed as follows: The boiler inspector of the District of Columbia and two practical engineers to be appointed by the district commissioners. Said examination shall be conducted in all respects under such rules and regulations as the commissioners of the District of Columbia shall from time to time provide; and all steam boilers and engines shall be subjected to such tests as the said commissioners may prescribe.

SEC. 3. That applicants for license as steam engineers must be twenty-one years of age and of temperate habits, must make application in writing, to which application must be attached a certificate as to character and moral habits signed by at least three citizens of the District of Columbia, themselves of moral standing.

SEC. 4. The fee for a license as steam engineer shall be three dollars.

SEC. 5. That any person employed as a licensed steam engineer in the District of Columbia who is found under the influence of intoxicating liquor while on duty, shall, for the first offense, have his license revoked for six months; for the second offense, twelve months; and for the third offense, shall have his license revoked and be debarred from following the occupation of licensed steam engineer in the District of Columbia for the period of five years.

SEC. 6. That any owner or lessee of steam boiler or engine, or the secretary of any corporation, who shall knowingly employ a steam engineer as such who has not been regularly licensed to act as such, shall be convicted thereof by the police court of the

District of Columbia, be fined fifty dollars, and in default of payment of such fine shall be confined for a period of one month in the work-house of the District of Columbia; provided, that boilers used for steam heating, where the water returns to the boiler without the use of a pump and injector or inspirator, and which are worked automatically, shall be exempt from the provisions of this section.

SEC. 7. That the foregoing section shall not apply to engineers who have been licensed by the United States government.

SEC. 8. That this act shall take effect sixty days after the approval thereof.

Approved, February 28, 1887.

#### U. S. MARINE LAW.

1. Before an original license is issued to any person to act as a master, mate, pilot, or engineer, he must personally appear before some local board or a supervising inspector for examination; but upon the renewal of such license, when the distance from any local board or supervising inspector is such as to put the person holding the same to great inconvenience and expense to appear in person, he may, upon taking the oath of office before any person authorized to administer oaths, and forwarding the same, together with the license to be renewed, to the local board or supervising inspector of the district in which he resides or is employed, have the same renewed by the said inspectors, if no valid reason to the contrary be known to them; and they shall attach such oath to the stub end of the license which is to be retained on file in their office: *Provided, however,* That any officer holding a license, and who is engaged in a service which necessitates his continuous absence from the United States, may make application in writing for one renewal and transmit the same to the board of local inspectors with a statement of the applicant, verified before a consul or other officer of the United States authorized to administer an oath, setting forth the reasons for not appearing in person, and upon receiving the same the board of local inspectors that originally issued such license shall renew the same for one additional term of such license, and shall notify the applicant of such renewal.

The first license issued to any person by a United States inspector shall be considered an original license, where the United States records show no previous issue to such applicant.

No original license shall be issued to any naturalized citizen on less experience in any grade than would have been required of an American by birth.

2. All licenses hereafter issued to masters, mates, pilots, and engineers shall be filled out on the face with pen and black ink instead of typewritten. Inspectors are directed, when licenses are completed, to draw a broad pen and black ink mark through all unused spaces in the body thereof, so as to prevent, as far as possible, illegal interpolation after issue.

3. Licensed officers serving under five years' license, entitled by license and service to raise of grade, shall have issued to them new licenses for the grade for which they are qualified, the local inspectors to forward to the Supervising Inspector-General the old license when surrendered, with the report of the circumstances of the case.

But the grade of no license shall be raised, except as hereinafter provided, unless the applicant can show one years' actual experience in the capacity for which he has been licensed.

4. In case of loss of license, of any class, from any cause, the inspectors, upon receiving satisfactory evidence of such loss, shall issue a certificate to the owner thereof, which shall have the authority of the lost license for the unexpired term, unless in the meantime the holder thereof shall have the grade of his license raised after due examination; in which case a license in due form for such grade may be issued.

5. Inspectors shall, before granting an original license to any person to act as an officer of a vessel, require the applicant to make his written application upon the blank form authorized by the Board of Supervising Inspectors, which application shall be filed in the records of the Inspectors' office. Inspectors shall also, when practicable, require applicants for pilot's license to have the written indorsement of the master and engineer of the vessel upon which he has served, and of one licensed pilot, as to his qualifications. In case of applicants for original engineer's license, they shall also, when practicable, have the indorsement of the master and engineer of a vessel on which they have served, together with one other licensed engineer.

6. No original master's, mate's, pilot's, or engineer's license shall be issued hereafter or grade increased except upon written

examination, which written examination shall be placed on file as records of the office of the inspectors issuing said license; and, before granting or renewing a license, inspectors shall satisfy themselves that the applicants can properly hear the bell and whistle signals.

7. Any applicant for license who has been duly examined and refused may come before any local board for reexamination after one year has expired.

8. When any person makes application for license it shall be the duty of the local inspectors to give the applicant the required examination as soon as practicable.

9. Any person who has served at least one year as master, commander, pilot, or engineer of any steam vessel of the United States in any service in which a license as master, mate, pilot, or engineer was not required at the time of such service, shall be entitled to license as master, mate, pilot, or engineer, if the inspectors, upon written examination, as required for applicants for original license, may find him qualified: *Provided*, That the experience of any such applicant within three years of making application has been such as to qualify him to serve in the capacity for which he makes application to be licensed.

Any officer of the Naval Militia who is an applicant for license as chief engineer or assistant engineer of steam vessels of the Naval Militia may be examined by inspectors and granted a special license as such, and for no other purpose, if, in the judgment of the inspectors, he is qualified. And the inspectors shall state on the license the name of the vessel on which such master, mate, pilot, or engineer is authorized to act in the capacity for which he is licensed.

All licenses issued to officers of the Naval Militia provided for in the preceding paragraph of this section shall be surrendered upon the party holding it becoming disconnected from the Naval Militia by resignation or dismissal from such service; and no license shall be issued as above except upon the official recommendation of the chief officer in command of the Naval Militia station of the State in which the applicant is serving.

10. No person holding special license (Form 878) shall be eligible for examination for a higher grade of license until such person has actually served two full seasons under the authority of

his license and one additional full season in a subordinate capacity upon steamers requiring regularly licensed officers.

11. Whenever an officer shall apply for a renewal of his license for the same grade the presentation of the old certificate shall be considered sufficient evidence of his title to renewal, which certificate shall be retained by the inspectors upon their official files as the evidence upon which the license was renewed: *Provided*, That it is presented within twelve months after the date of its expiration, unless such title has been forfeited or facts shall have come to the knowledge of the inspectors which would render a renewal improper; nor shall any license be renewed in advance of the date of the expiration thereof, unless there are extraordinary circumstances that shall justify a renewal beforehand, in which case the reasons therefor must appear in detail upon the records of the inspectors renewing the license.

12. When the license of any master, mate, pilot, or engineer is revoked such license expires with such revocation, and any license subsequently granted to such person shall be considered in the light of an original license. And upon the revocation or suspension of the license of any such officer said license shall be surrendered to the local inspectors ordering such suspension or revocation.

13. The suspension or revocation of a joint license shall debar the person holding the same from the exercise of any of the privileges therein granted, so long as such suspension or revocation shall remain in force.

14. When the license of any master, mate, engineer, or pilot is suspended, the inspectors making such suspension shall determine the term of its duration, except that such suspension can not extend beyond the time for which the license was issued.

## CLASSIFICATION OF ENGINEERS.

### CHIEF.

20. Chief engineer of ocean steamers.

Chief engineer of condensing lake, bay, and sound steamers.

Chief engineer of noncondensing lake, bay, and sound steamers.

Chief engineer of condensing river steamers.

Chief engineer of noncondensing river steamers.

Any person holding chief engineer's license shall be permitted to act as first assistant on any steamer of double the tonnage of same class named in said chief's license.

Engineers of all classifications may be allowed to pursue their profession upon all waters of the United States in the class for which they are licensed.

#### FIRST ASSISTANT.

First assistant engineer of ocean steamers.

First assistant engineer of condensing lake, bay, and sound steamers.

First assistant engineer of noncondensing lake, bay, and sound steamers.

First assistant engineer of condensing river steamers.

First assistant engineer of noncondensing river steamers.

Engineers of lake, bay, and sound steamers, who have actually performed the duties of engineer for a period of three years, shall be entitled to examination for engineer of ocean steamers, applicant to be examined in the use of salt water, method employed in regulating the density of the water in boilers, the application of the hydrometer in determining the density of sea water, and the principle of constructing the instrument; and shall be granted such grade as the inspectors having jurisdiction on the Great Lakes and seaboard may find him competent to fill.

Any assistant engineer of ocean steamers of 1,500 gross tons and over, having had actual service in that position for one year, may, if the local inspectors, in their judgment, deem it advisable, have his license indorsed to act as chief engineer on lake, bay, sound, or river steamers of 750 gross tons or under.

Any person having had a first assistant engineer's license for two years, and having had two years' experience as second assistant engineer, shall be eligible for examination for chief engineer's license.

#### SECOND ASSISTANT.

Second assistant engineer of ocean steamers.

Second assistant engineer of condensing lake, bay, and sound steamers.

Second assistant engineer of noncondensing lake, bay and sound steamers.

Second assistant engineer of condensing river steamers.

Any person having had a second assistant engineer's license for two years, and having had two years' experience as third assistant engineer, shall be eligible for examination for first assistant engineer's license.



## THIRD ASSISTANT.

Third assistant engineer of ocean steamers.

Third assistant engineer of condensing lake, bay, and sound steamers.

First, second, and third assistant engineers may act as such on any steamer of the grade of which they hold license, or as such assistant engineer on any steamer of a lower grade than those to which they hold a license.

Any person having a third assistant engineer's license for two years, and having had two years' experience as oiler or water tender since receiving said license, shall be eligible for examination for second assistant engineer's license.

Inspectors may designate upon the certificate of any chief or assistant engineer the tonnage of the vessel on which he may act.

Any assistant engineer may act as engineer in charge on steamers of 100 tons and under. In all cases where an assistant engineer is permitted to act as engineer in charge, the inspectors shall so state on the face of his certificate of license without further examination.

21. It shall be the duty of an engineer when he assumes charge of the boilers and machinery of a steamer to forthwith thoroughly examine the same, and if he finds any part thereof in bad condition, caused by neglect or inattention on the part of his predecessor, he shall immediately report the facts to the master, owner, or agent, and to the local inspectors of the district, who shall thereupon investigate the matter, and if the former engineer has been culpably derelict of his duty, they shall suspend or revoke his license.

22. Before making general repairs to a boiler of a steam vessel the engineer in charge of such steamer shall report, in writing, the nature of such repairs to the local inspector of the district wherein such repairs are to be made.

And it shall be the duty of all engineers when an accident occurs to the boilers or machinery in their charge tending to render the further use of such boilers or machinery unsafe until repairs are made, or when, by reason of ordinary wear, such boilers or machinery have become so unsafe, to report the same to the local inspectors immediately upon the arrival of the vessel at the first port reached subsequent to the accident, or after the discovery of such unsafe condition by said engineer.

23. Whenever a steamer meets with an accident involving loss of life or damage to property it shall be the duty of the licensed

officers of any such steamer to report the same in writing and in person without delay to the nearest board: *Provided*, That when from distance it may be inconvenient to report in person it may be done in writing only and the report sworn to before any person authorized to administer oaths.

24. No person shall receive an original license as engineer or assistant engineer (except for special license on small pleasure steamers and ferryboats of 10 tons and under, sawmill boats, pile drivers, boats exclusively engaged as fishing boats, and other similar small vessels) who has not served at least three years in the engineer's department of a steam vessel, a portion of which experience must have been obtained within the three years next preceding the application.

*Provided*, That any person who has served three years as apprentice to the machinist trade in a marine, stationary, or locomotive engine works, and any person who has served for a period of not less than three years as a locomotive or stationary engineer, and any person graduated as a mechanical engineer from a duly recognized school of technology, may be licensed to serve as an engineer of steam vessels after having had not less than one year's experience in the engine department of steam vessels, a portion of which experience must have been obtained within the three years preceding his application; which fact must be verified by the certificate in writing, of the licensed engineer or master under whom the applicant has served, said certificate to be filed with the application of the candidate; and no person shall receive license as above, except for special license, who is not able to determine the weight necessary to be placed on the lever of a safety valve (the diameter of valve, length of lever, distance from center of valve to fulcrum, weight of lever, and weight of valve and stem being known) to withstand any given pressure of steam in a boiler, or who is not able to figure and determine the strain brought on the braces of a boiler with a given pressure of steam, the position and distance apart of braces being known, such knowledge to be determined by an examination in writing, and the report of examination filed with the application in the office of the local inspectors, and no engineer or assistant engineer now holding a license shall have the grade of the same raised without possessing the above qualifications. No original license shall be granted any engineer or assistant engineer who can

not read and write and does not understand the plain rules of arithmetic.

25. Any person may be licensed as engineer (on Form 2130 $\frac{7}{8}$ ) [New Form 880] on vessels propelled by gas, fluid, naphtha, or electric motors, of 15 gross tons or over, engaged in commerce, if in the judgment of the inspectors, after due examination in writing, he be found duly qualified to take charge of the machinery of vessels so propelled.

Any person holding a license as engineer of steam vessels, desiring to act as engineer of motor vessels, must appear before a board of local inspectors for examination as to his knowledge of the machinery of such motor vessels, and if found qualified shall be licensed as engineer of motor vessels. Form 878, special license to engineers, shall be issued only to engineers in charge of vessels of 10 tons and under. All other licenses to engineers shall be issued on Forms 876 and 877, according to grades specified in this section.

## BOILER EXPLOSIONS, ETC.

	Explosions	Killed	Injured	Total	Property Loss
1879 .....	132	208	213	421	\$ 225,000
1880 .....	170	259	555	814	248,900
1881 .....	159	251	313	564	315,850
1882 .....	172	271	359	630	249,700
1883 .....	184	263	412	675	556,600
1884 .....	152	254	251	505	577,300
1885 .....	155	220	278	498	602,900
1886 .....	185	254	314	568	403,070
1887 .....	198	264	388	652	199,850
1888 .....	246	331	505	836	199,550
1889 .....	180	304	433	737	737,500
1890 .....	226	244	351	595	78,150
1891 .....	257	263	371	634	433,500
1892 .....	269	298	442	740	420,300
1893 .....	316	327	385	712	1,959,900
1894 .....	362	331	472	803	307,800
1895 .....	355	374	519	893	997,500
1896 .....	346	382	529	911	1,050,000
1897 .....	369	398	528	926	1,500,000
1898 .....	383	324	577	901	2,100,000
1899 .....	383	298	456	754	1,400,000
1900 .....	373	268	520	788	990,000
1901 .....	423	312	646	958	1,300,000
1902 .....	391	304	529	833	1,200,000
1903 .....	383	293	522	815	980,000
1904 .....	391	220	394	1,005	
1905 .....	450	383	585	1,418	
Totals .....	7,610	7,898	11,847	20,386	

No. 1.

\* The cash losses reported above do not represent one-fourth of actual losses not reported.

Table No. 1 compiled from reports of the Hartford Steam Boiler Inspection and Insurance Company.

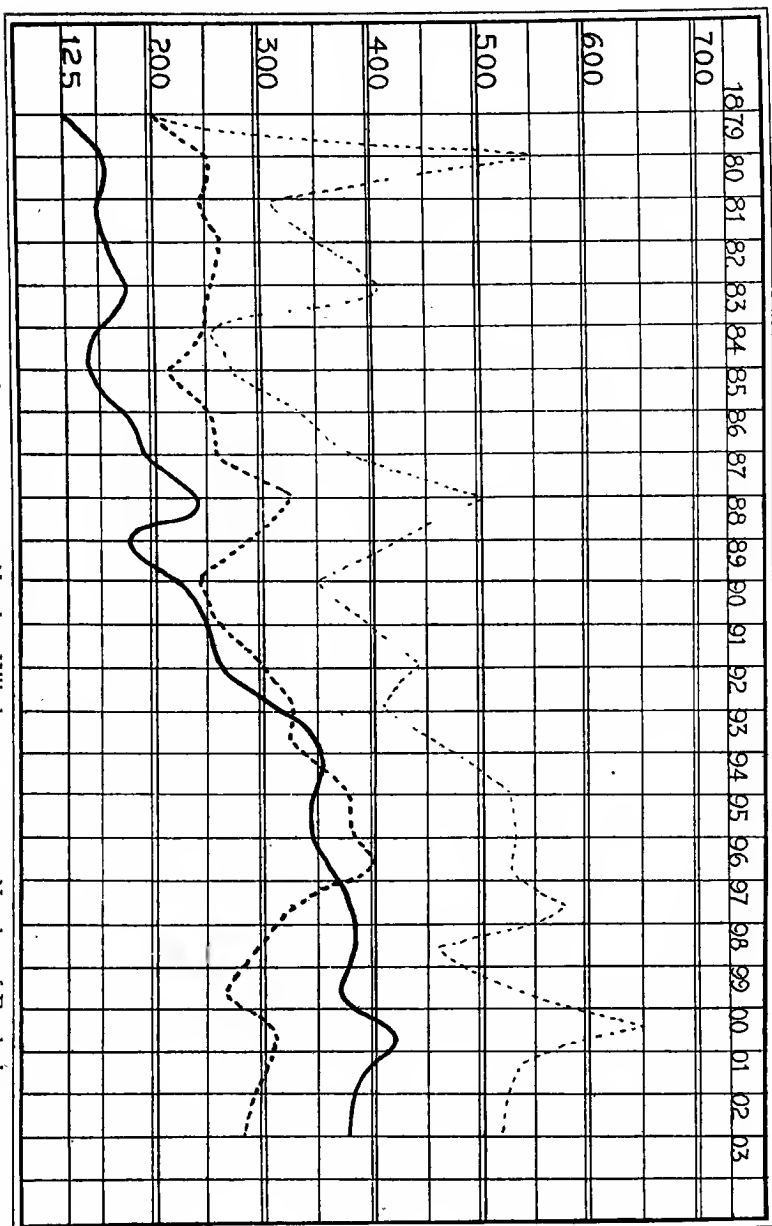
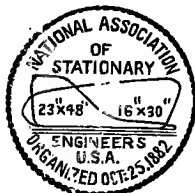


Diagram Showing Number of Boiler Explosions; also Number of Persons Killed and Injured.

# NATIONAL ASSOCIATION OF STATIONARY ENGINEERS.

Organized 1882.  
450 Associations.  
20,000 Members.



Incorporated  
Under Laws of  
State of New York.

*The Organization is Based Upon the Following Objects:*

The better education of its members in the art and science of steam engineering.

To protect the interests of competent engineers in their vocation.

To enroll all competent engineers in this organization.

Imparting information beneficial to the craft.

Assisting members out of employment to obtain the same.

To procure by legal enactment greater safety in the operation of steam plants.

## PREAMBLE

This Association shall at no time be used for the furtherance of strikes, or for the purpose of interfering in any way between its members and their employers in regard to wages; recognizing the identity of interests between employer and employe, and not countenancing any project or enterprise that will interfere with the perfect harmony between them.

Neither shall it be used for political or religious purposes. Its meetings shall be devoted to the business of the Association and at all times preference shall be given to the education of engineers, and to securing of the enactment of engineers' license laws in order to prevent the destruction of life and property in the generation and transmission of steam as a motive power.

FRED W. RAVEN,  
*National Secretary.*

Room 525 Manhattan Bldg., Chicago, Ill.

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